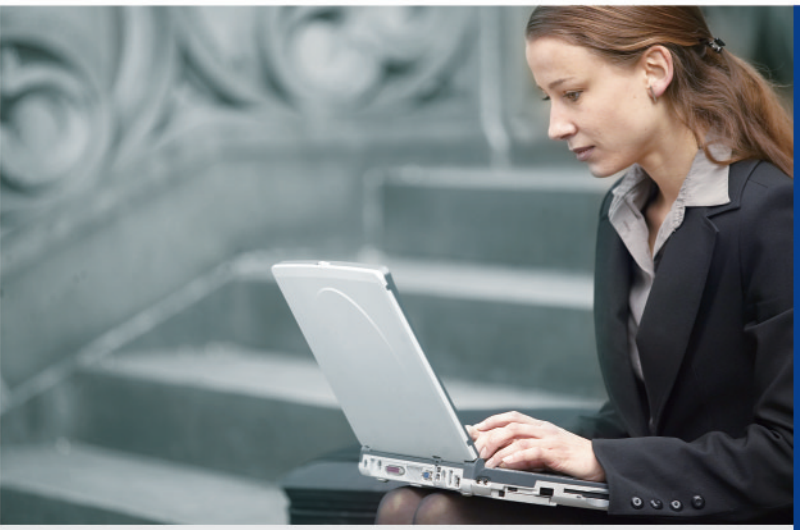
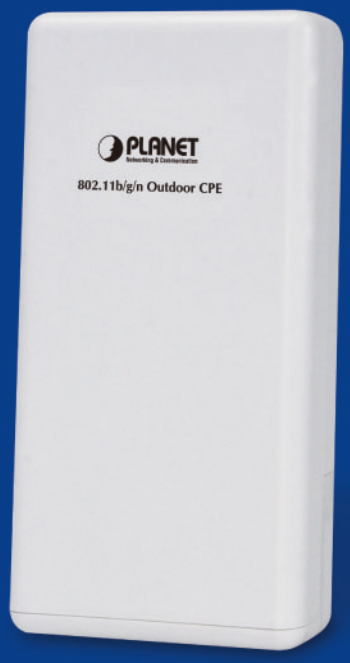
PLANET
Networking & Communication

User's Manual

300Mbps 802.11n Wireless Outdoor CPE

► WNAP-6325





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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. Any changes or modifications not expressly approved by PLANET could void the user's authority to operate this equipment under the rules and regulations of the FCC.

FCC Caution:

To assure continued compliance, (for example, use only shielded interface cables when connecting to computer or peripheral devices) any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference
(2) This device must accept any interference received, including interference that may cause undesired operation.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Energy Saving Note of the Device

This power required device does not support Standby mode operation. For energy saving, please remove the DC-plug to disconnect the device from the power circuit. Without removing the DC-plug, the device still consumes power from the power circuit. In view of Saving the Energy, it is strongly suggested to remove the DC-plug for the device if this device is not intended to be active.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE). The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) as of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

WEEE regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and thus, WEEE has to be collected separately.

Revision

User's Manual of PLANET 300Mbps 802.11n Wireless Outdoor CPE

Model: WNAP-6325

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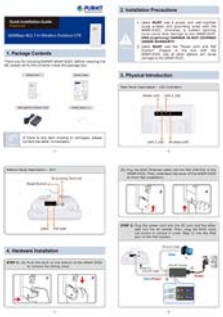
Chapter 1. Product Introduction

1.1 Package Contents

Thank you for choosing PLANET WNAP-6325. Before installing the AP, please verify the contents inside the package box.

WNAP-6325

Quick Installation Guide



PoE Injector & Power Cord

Plastic Strap x 1

Note

If there is any item missing or damaged, please contact the seller immediately.

1.2 Product Description

Cost-effective Wireless Solution with Superior Performance

PLANET WNAP-6325 is designed to provide a highly-stable, better performance and cost-effective wireless solution in outdoor wireless deployment. With the same transmission power, it offers better significant range and excellent throughput than those of the traditional 802.11g wireless device. Via the embedded 12dBi dual-polarization (vertical and horizontal) directional antenna, it provides good diversity coverage and better noise immunity effect, thus heightening the performance of a long-distance, outdoor connectivity even though the environment is flooded with many 2.4GHz wireless equipment.

Designed for Various Requirements

The WNAP-6325 is dedicatedly designed for WISP solution that provides CPE users with Internet access via the WISP provider in rural areas. Besides, it caters to various wireless communication connectivities (AP / Client / WDS PtP / WDS PtMP / WISP), thus meeting users' application requirements.

Advanced Security and Rigorous Authentication

The WNAP-6325 supports WEP, WPA / WPA2, WPA-PSK and WPA2-PSK wireless encryptions, the advanced WPA2-AES mechanism and 802.1X RADIUS authentication, which can effectively prevent eavesdropping by unauthorized users or bandwidth occupied by unauthenticated wireless access. Furthermore, any users are granted or denied access to the wireless LAN network based on the ACL (Access Control List) that the administrator pre-established. In addition, with the multiple-SSIDs feature, you can set up different wireless networks. The WNAP-6325 can therefore serve as a virtual access point for segmented networks tailored to any industrial need.

Flexible and Reliable Outdoor Characteristics

The WNAP-6325 is definitely suitable for such applications as IP surveillance, backhaul link of building to building and backbone of public service. Additionally, the self-healing/schedule reboot capability keeps connection alive all the time. Meeting the IP55 rating for outdoor UV resistant enclosure, the WNAP-6325 can perform normally under rigorous weather conditions, meaning it can be installed in any harsh, outdoor environments. With the proprietary Power over Ethernet (PoE) design, the WNAP-6325 can be easily installed in the areas where power outlets are not available.

Easy Deployment and Management

With user-friendly Web UI and step-by-step setup wizard, the WNAP-6325 is easy to install, even for users who never experience in setting up a wireless network. Furthermore, with the Planet Smart Discovery Utility and SNMP-based management interface, the WNAP-6325 is convenient to be managed and configured remotely.

1.3 Product Features

- **Industrial Compliant Wireless LAN and LAN**
  - Compliant with the IEEE 802.11n wireless technology (with data rate of up to 300Mbps)
  - Backward compatible with 802.11g standard
  - Equipped with 10/100Mbps RJ45 ports for LAN and WAN; auto MDI/ MDI-X supported
- **Fixed-network Broadband Router**
  - Supported connection types: Dynamic IP, Static IP, PPPoE
  - Supports virtual server and DMZ for various networking applications
  - Supports DHCP server, UPnP and Planet DDNS
- **RF Interface Characteristics**
  - Built-in 12dBi dual-polarization antenna
  - High output power up to 500mW with multiply-adjustable transmit power control
- **Outdoor Environmental Characteristics**
  - IP55 enclosure
  - Passive Power over Ethernet design
  - Operating temperature: -20~70°C
- **Multiple Operations and Wireless Modes**
  - Multiple operation modes: Bridge, WISP
  - Multiple wireless modes: AP, Client CPE (WISP), WDS PtP, WDS PtMP
  - Supports multiple SSIDs to allow users to access different networks through a single AP
  - Supports WMM (Wi-Fi multimedia)
- **Secure Network Connection**
  - Supports software Wi-Fi Protected Setup (WPS)
  - Advanced security: 64/128-bit WEP, WPA / WPA2, WPA-PSK / WPA2-PSK (TKIP/AES) and 802.1x RADIUS authentication
  - Supports IP / Protocol-based access control and MAC filtering
- **Easy Installation and Management**
  - Web-based UI and quick Setup Wizard for easy configuration
  - Planet Smart Discovery Utility allows administrator to discover and locate each AP
  - SNMP-based management interface
  - System status monitoring includes DHCP Client and System Log

1.4 Product Specification

Product	**WNAP-6325** 300Mbps 802.11n Wireless Outdoor CPE	
Hardware		
Standard Support	IEEE802.11b/g/n IEEE 802.3 IEEE 802.3u IEEE 802.3x	
Chipset	Atheros AR9344	
Memory	64 Mbytes DDR SDRAM 16 Mbytes Flash	
PoE	Passive PoE	
Interface	Wireless IEEE802.11b/g/n, 2T2R PoE LAN (LAN 1): 1 x 10/100BASE-TX, auto-MDI/MDIX, passive PoE LAN 2: 1 x 10/100BASE-TX, auto-MDI/MDIX, passive PoE out pass-through	
Antenna	Built-in 12dBi Dual-Polarization Antenna - Horizontal: 30 degrees - Vertical: 20 degrees	
Data Rate	IEEE 802.11b: 1, 2, 5.5, 11Mbps IEEE 802.11g: up to 54Mbps IEEE 802.11n (20MHz): up to 150Mbps IEEE 802.11n (40MHz): up to 300Mbps	
Media Access Control	CSMA/CA	
Modulation	Transmission/Emission type: OFDM Data modulation type: OFDM with BPSK, QPSK, 16-QAM, 64-QAM	
Frequency Band	2.412GHz ~ 2.484GHz	
Operating Channel	America/ FCC: 2.414~2.462GHz (11 Channels) Europe/ ETSI: 2.412~2.472GHz (13 Channels) Japan/ TELEC: 2.412~2.484GHz (14 Channels)	
RF Output Power (dBm)	IEEE 802.11b: up to 26 ± 1dBm IEEE 802.11g: up to 23 ± 1dBm IEEE 802.11n: up to 22 ± 1dBm	
Receiver Sensitivity (dBm)	IEEE 802.11b: -94dBm IEEE 802.11g: -91dBm IEEE 802.11n: -89dBm	
Output Power Control	12~27Bm	
Power Consumption	12W	
Power Requirements	LAN	24VDC, 1A/ Passive PoE Pin 4,5 VDC+ Pin 7,8 VDC- Pin 3 Reset
Environment & Certification		

Operating Temperature	-20~70°c
Operating Humidity	10~95% non-condensing
IP Level	IP55
Regulatory	CE, FCC, RoHS
Software	
LAN	Built-in DHCP server supporting static IP address distributing
	Support 802.1d STP (Spanning Tree)
WAN	■ Static IP ■ Dynamic IP ■ PPPoE
Operation Modes	■ Bridge ■ WISP
Firewall	NAT firewall with SPI (Stateful Packet Inspection)
	Built-in NAT server supporting Virtual Server, and DMZ
	Built-in firewall with Port/ IP address/ MAC/ URL filtering
Wireless Modes	■ AP ■ Client ■ WDS PTP ■ WDS PTMP ■ WISP
Channel Width	20MHz / 40MHz
Wireless Isolation	Enable it to isolate each connected wireless client so that they cannot access mutually.
Encryption Type	64/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X
Wireless Security	Provides wireless LAN ACL (Access Control List) filtering
	Wireless MAC address filtering
	Enable/Disable SSID Broadcast
Max. Wireless Clients	25
Max. WDS AP	8
Max. Wired Clients	60
WMM	Supports Wi-Fi multimedia
QoS	Supports Quality of Service for bandwidth control
NTP	Network Time Management
Self Healing	Supports Schedule Reboot
Management	Web UI, DHCP Client, Configuration Backup & Restore, Dynamic DNS, SNMP
Diagnostic Tool	System Log, Ping Watchdog

Chapter 2. Hardware Installation

Please follow the instructions below to connect the WNAP-6325 to the existing network devices and your computers.

2.1 Hardware Description

- **Dimensions**: 127 x 63 x 254 mm (W x D x H)

Figure 2-1 Three-way View

Rear Panel – LED

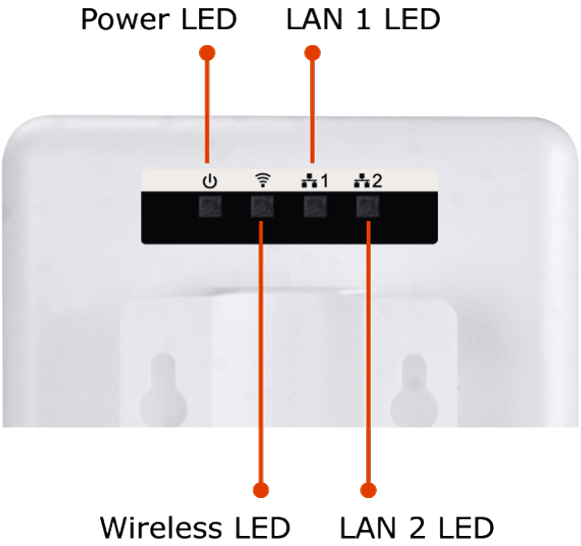


Figure 2-2 LED

LED Definition

LED	State	Meaning
Power	On	System On
	Off	System Off
Wireless	On	Wi-Fi On
	Off	Wi-Fi Off
LAN 1	On	Port linked.
	Off	No link.
LAN 2	On	Port linked.
	Off	No link.

Table 2-1 The LED indication

2.1.1 The Bottom Panel – Port

The Bottom panel provides the physical connectors connected to the power adapter and any other network device. **Figure 2-3** shows the bottom panel of the WNAP-7325.

Bottom Panel

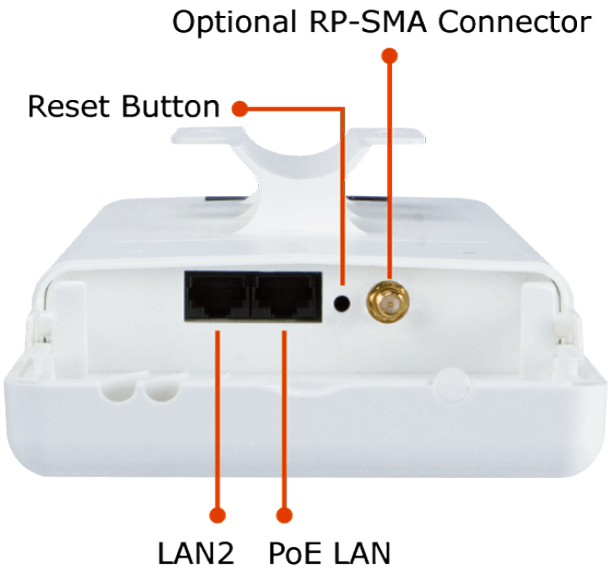


Figure 2-3 Bottom Panel

PoE Injector

Figure 2-4 PoE Injector

H/W Interface Definition

Object	Description
PoE LAN (Passive PoE)	10/100Mbps RJ45 port , auto MDI/ MDI-X and passive PoE supported Connect LAN port to the PoE injector to power on the device. **Pin assignment:** **Pin 4, 5 (+)** **Pin 7, 8 (-)** **Pin 3 (Reset)**
LAN 2	10/100Mbps RJ45 port, auto MDI/ MDI-X Connect this port to the network equipment. ※ When the option "**Enable POE Passthrough**" on the System Management page is checked, the LAN2 can supply passive PoE power to the second WNAP-7325 or WNAP-6325 through LAN 2.

Reset	Press the **Reset** button on the device or on the PoE injector over 5 seconds to return to factory default setting. **※ If you have connected with the thunder protector like PLANET ELA-100, please DO NOT press the reset button on the PoE injector to prevent the ELA-100 from being damaged. Remove the thunder protector before push the reset button.**

Table 2-2 The PoE Injector Indication

Chapter 3. Connecting to the AP

3.1 Preparation before Installation

3.1.1 Professional Installation Required

Please seek assistance from a professional installer who is well trained in the RF installation and knowledgeable in the local regulations.

3.1.2 Safety Precautions

1. To keep you safe and install the hardware properly, please read and follow these safety precautions.
2. If you are installing the WNAP-6325 for the first time, for your safety as well as others', please seek assistance from a professional installer who has received safety training on the hazards involved.
3. Keep safety as well as performance in mind when selecting your installation site, especially where there are electric power and phone lines.
4. When installing the WNAP-6325, please note the following things:
   - Do not use a metal ladder;
   - Do not work on a wet or windy day;
   - Wear shoes with rubber soles and heels, rubber gloves, long sleeved shirt or jacket.
5. When the system is operational, avoid standing directly in front of it. Strong RF fields are present when the transmitter is on.

3.2 Installation Precautions

- Users **MUST** use a proper and well-installed surge arrestor and grounding kit with WNAP-6325; otherwise, a random lightning could easily cause fatal damage to the WNAP-6325. **EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.**
- Users **MUST** use the "Power cord and PoE Injector" shipped in the box with the WNAP-6325. Use of other options will cause damage to the WNAP-6325.

OUTDOOR INSTALLATION WARNING

IMPORTANT SAFETY PRECAUTIONS:

LIVES MAY BE AT RISK! Carefully observe these instructions and any special instructions that are included with the equipment you are installing.

CONTACTING POWER LINES CAN BE LETHAL. Make sure no power lines are anywhere where possible contact can be made. Antennas, masts, towers, guy wires or cables may lean or fall and contact these lines. People may be injured or killed if they are touching or holding any part of equipment when it contacts electric lines. Make sure that equipment or personnel do not come in contact directly or indirectly with power lines.

The horizontal distance from a tower, mast or antenna to the nearest power line should be at least twice the total length of the mast/antenna combination. This will ensure that the mast will not contact power if it falls either during installation or later.

TO AVOID FALLING, USE SAFE PROCEDURES WHEN WORKING AT HEIGHTS ABOVE GROUND.

- Select equipment locations that will allow safe, simple equipment installation.
- Don't work alone. A friend or co-worker can save your life if an accident happens.
- Use approved non-conducting lasers and other safety equipment. Make sure all equipment is in good repair.
- If a tower or mast begins falling, don't attempt to catch it. Stand back and let it fall.
- If anything such as a wire or mast does come in contact with a power line, **DON'T TOUCH IT OR ATTEMPT TO MOVE IT**. Instead, save your life by calling the power company.
- Don't attempt to erect antennas or towers on windy days.

MAKE SURE ALL TOWERS AND MASTS ARE SECURELY GROUNDED, AND ELECTRICAL CABLES CONNECTED TO ANTENNAS HAVE LIGHTNING ARRESTORS. This will help prevent fire damage or human injury in case of lightning, static build-up, or short circuit within equipment connected to the antenna.

- The base of the antenna mast or tower must be connected directly to the building protective ground or to one or more approved grounding rods, using 1 OAWG ground wire and corrosion-resistant connectors.
- Refer to the National Electrical Code for grounding details.

IF A PERSON COMES IN CONTACT WITH ELECTRICAL POWER, AND CANNOT MOVE:

- **DON'T TOUCH THAT PERSON, OR YOU MAY BE ELECTROCUTED.**
- Use a non-conductive dry board, stick or rope to push or drag them so they no longer are in contact with electrical power.

Once they are no longer contacting electrical power, administer CPR if you are certified, and make sure that emergency medical aid has been requested.

3.3 Installing the AP

Please install the AP according to the following Steps. Don't forget to pull out the power plug and keep your hands dry.

Step 1. Push the latch on the bottom of the WNAP-6325 to remove the sliding cover.

Figure 3-1 Connect the Antenna

Step 2. Plug the RJ45 Ethernet cable into the PoE LAN Port of the WNAP-6325. Then, slide back the cover of the WNAP-6325 to finish the installation.

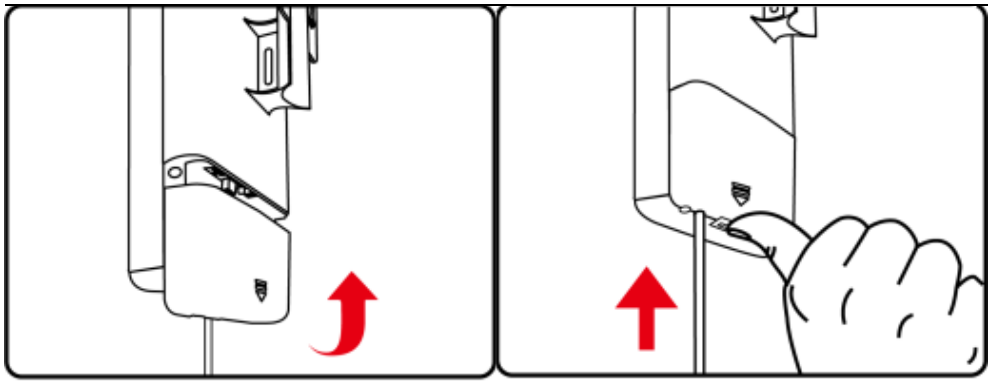


Figure 3-2 Connect the Ethernet cable

Step 3. Plug the power cord into the DC port and the other end into the AC socket. Then, plug the RJ45 cable (as shown in picture 4 under Step 1) into the POE port of the PoE injector.

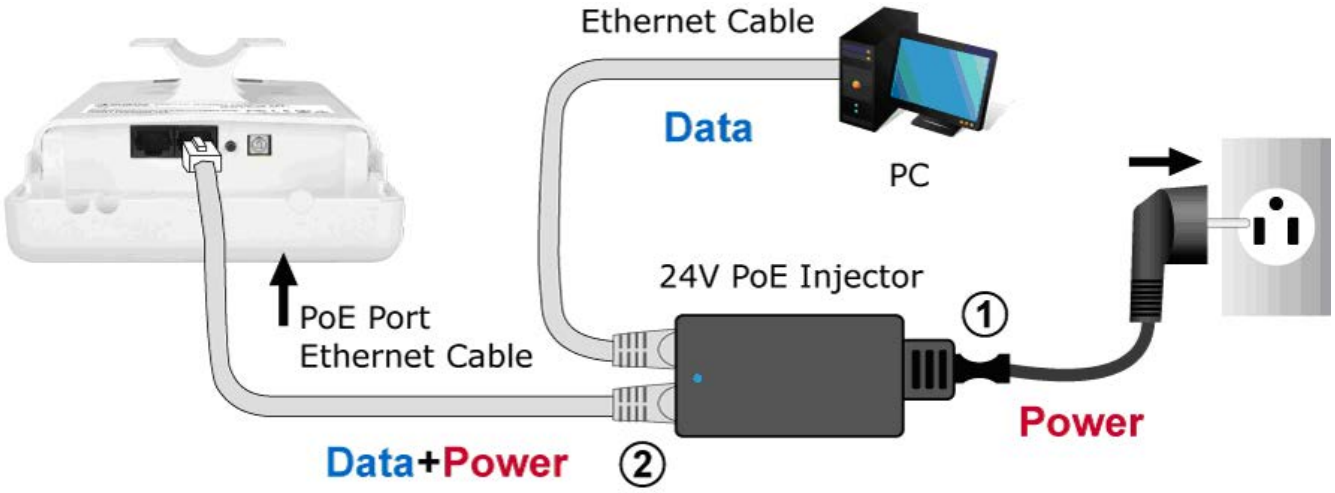


Figure 3-3 Connect the PoE injector

Step 4. Pole Mounting:

Place the strap through the slot on the back of the WNAP-6325 and then around the pole. Tighten the strap to secure the WNAP-6325.

Figure 3-4 Pole Mounting

Chapter 4. Quick Installation Guide

This chapter will show you how to configure the basic functions of your AP within minutes.

A computer with wired Ethernet connection to the Wireless AP is required for the first-time configuration.

4.1 Manual Network Setup - TCP/IP Configuration

The default IP address of the WNAP-6325 is **192.168.1.253**. And the default Subnet Mask is 255.255.255.0. These values can be changed as you desire. In this guide, we use all the default values for description.

Connect the WNAP-6325 with your PC via an Ethernet cable which is then plugged into a LAN port of the PoE injector with one end and into a LAN port of the PC with the other end. Then power on the WNAP-6325 via PoE injector or PoE switch.

In the following sections, we'll introduce how to install and configure the TCP/IP correctly in **Windows 7**. And the procedures in other operating systems are similar. First, make sure your Ethernet adapter is working, and refer to the Ethernet adapter's manual if needed.

4.1.1 Configuring the IP Address Manually

Summary:

- Set up the TCP/IP Protocol for your PC.
- Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" is any number from 2 to 252), Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.253 (The AP's default IP address)

1 Select **Use the following IP address** radio button.

2 If the AP's LAN IP address is 192.168.1.1, enter IP address 192.168.1.x (x is from 2 to 254), and **Subnet mask** 255.255.255.0.

3 Select **Use the following DNS server addresses** radio button. In the **Preferred DNS Server** field, you can enter the DNS server IP address which has been provided by your ISP

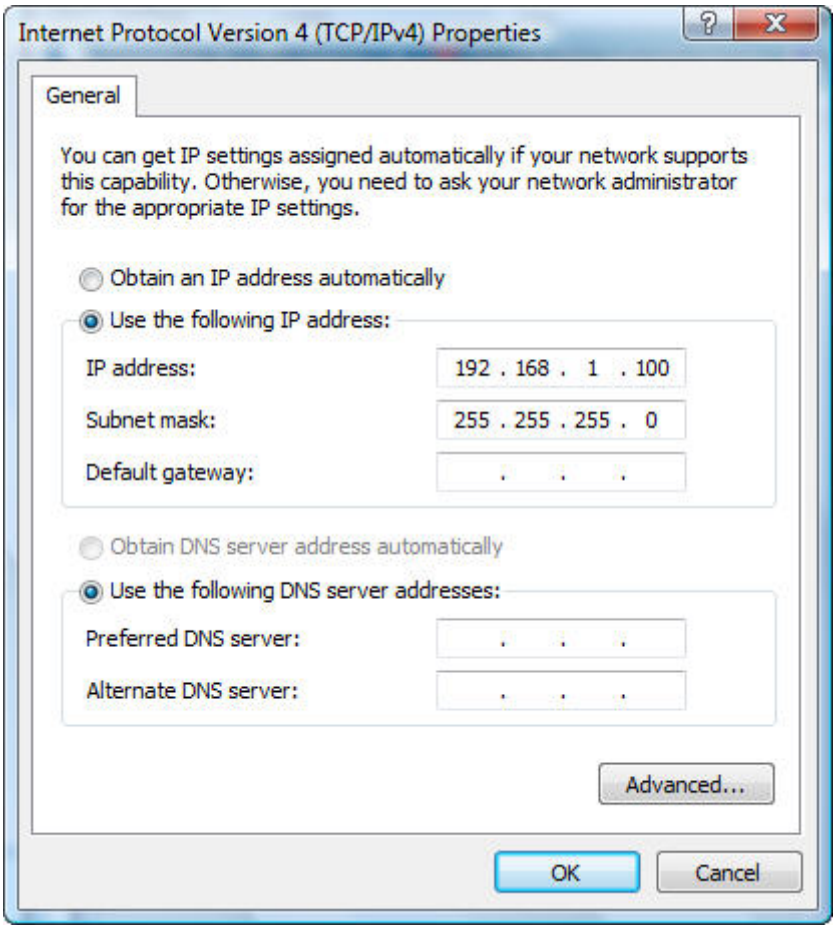


Figure 4-1 TCP/IP Setting

Now click **OK** to save your settings.

Now, you can run the ping command in the **command prompt** to verify the network connection between your PC and the AP. The following example is in **Windows 7** OS. Please follow the Steps below:

1. Click on **Start > Run**.
2. Type "**cmd**" in the Search box.

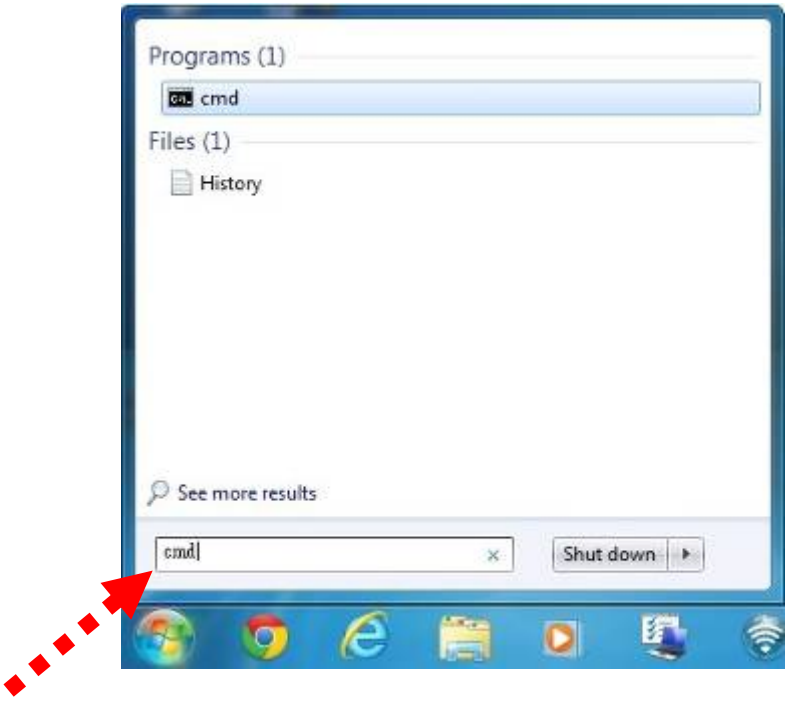


Figure 4-2 Windows Start Menu

3. Open a command prompt and type ***ping 192.168.1.253***, and then press **Enter**.

If the result displayed is similar to **Figure 4-3**, it means the connection between your PC and the AP has been established well.

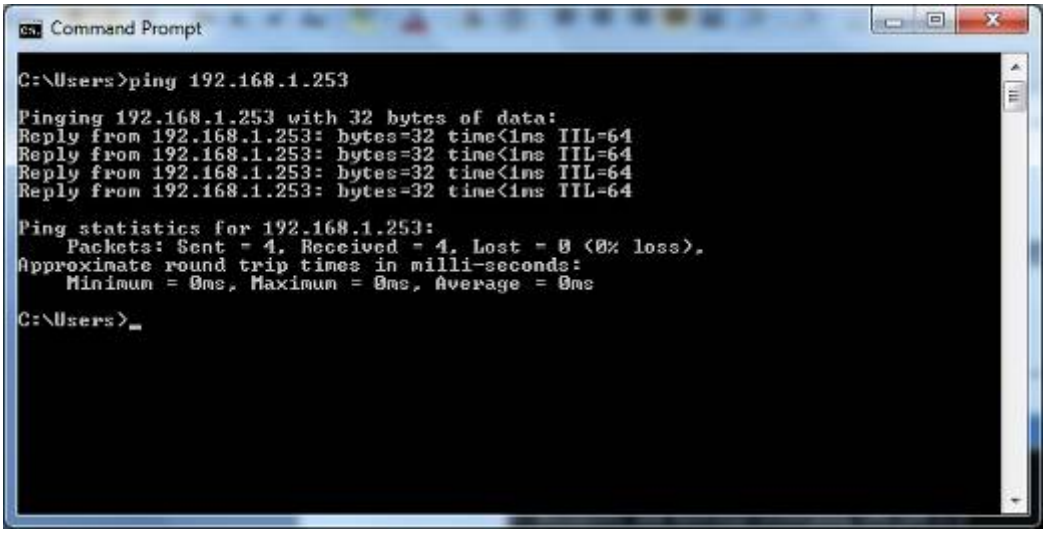


Figure 4-3 Successful result of Ping command

If the result displayed is similar to **Figure 4-4**, it means the connection between your PC and the AP has failed.

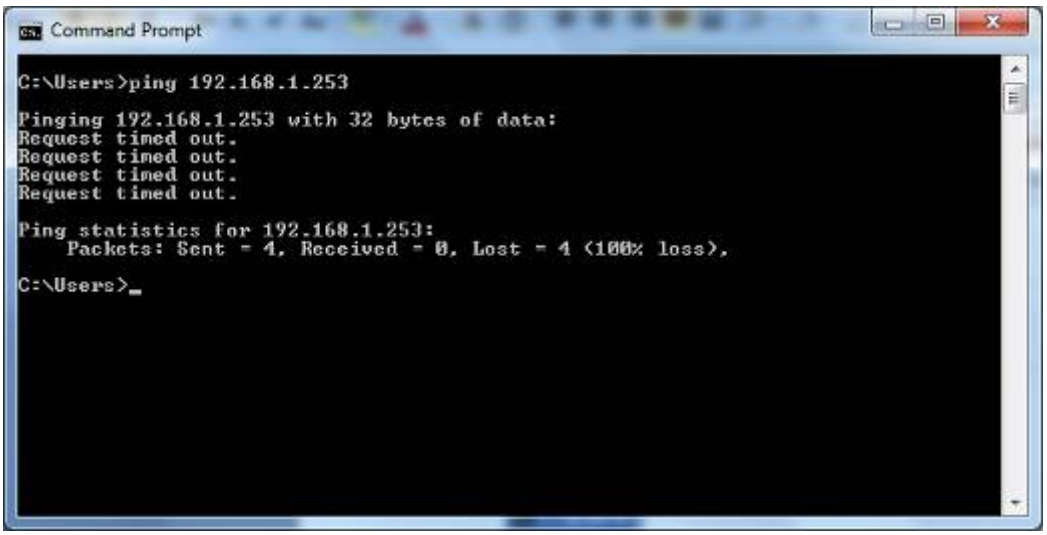


Figure 4-4 Failed result of Ping command

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your AP. Some firewall software programs may block a DHCP request on newly installed adapters.

4.2 Starting Setup in the Web UI

It is easy to configure and manage the WNAP-6325 with the web browser.

Step 1. To access the configuration page, open a web browser and enter the default IP address http://192.168.1.253 in the web address field of the browser.

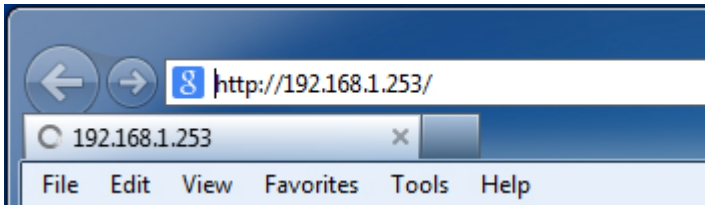


Figure 4-5 Login by default IP address

After a moment, a login window will appear. Enter **admin** for the User Name and Password, both in lower case letters. Then click the **OK** button or press the **Enter** key.

Figure 4-6 Login Window

Default IP Address: **192.168.1.253**

Default User Name: **admin**

Default Password: **admin**

Note

If the above screen does not pop up, it may mean that your web browser has been set to a proxy. Go to **Tools menu>Internet Options>Connections>LAN Settings** in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.

After entering the username and password, the **Operation Mode** page screen appears as in **Figure 4-8**

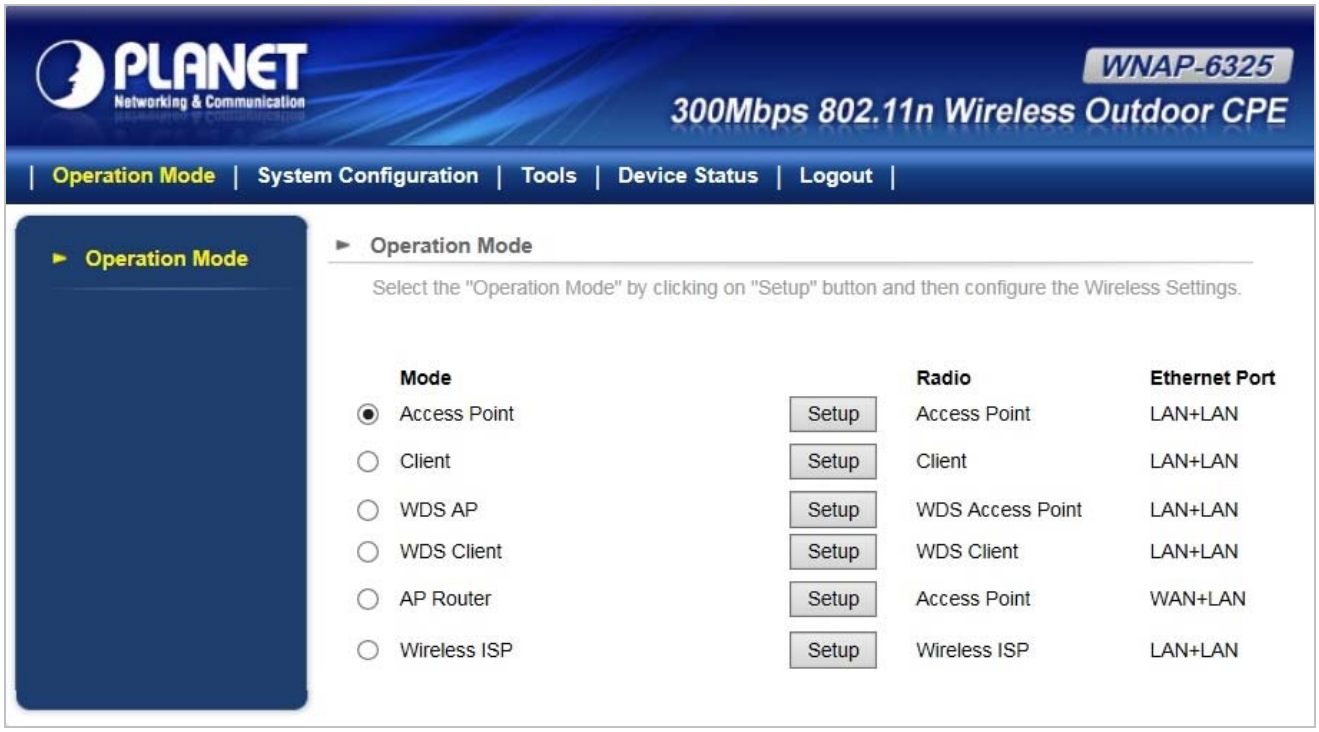


Figure 4-7 WNAP-6325 Web UI Screenshot

Step 2. You can choose an Operation Mode. Please refer to the instructions in the next chapter for configuring the other Operation Modes.

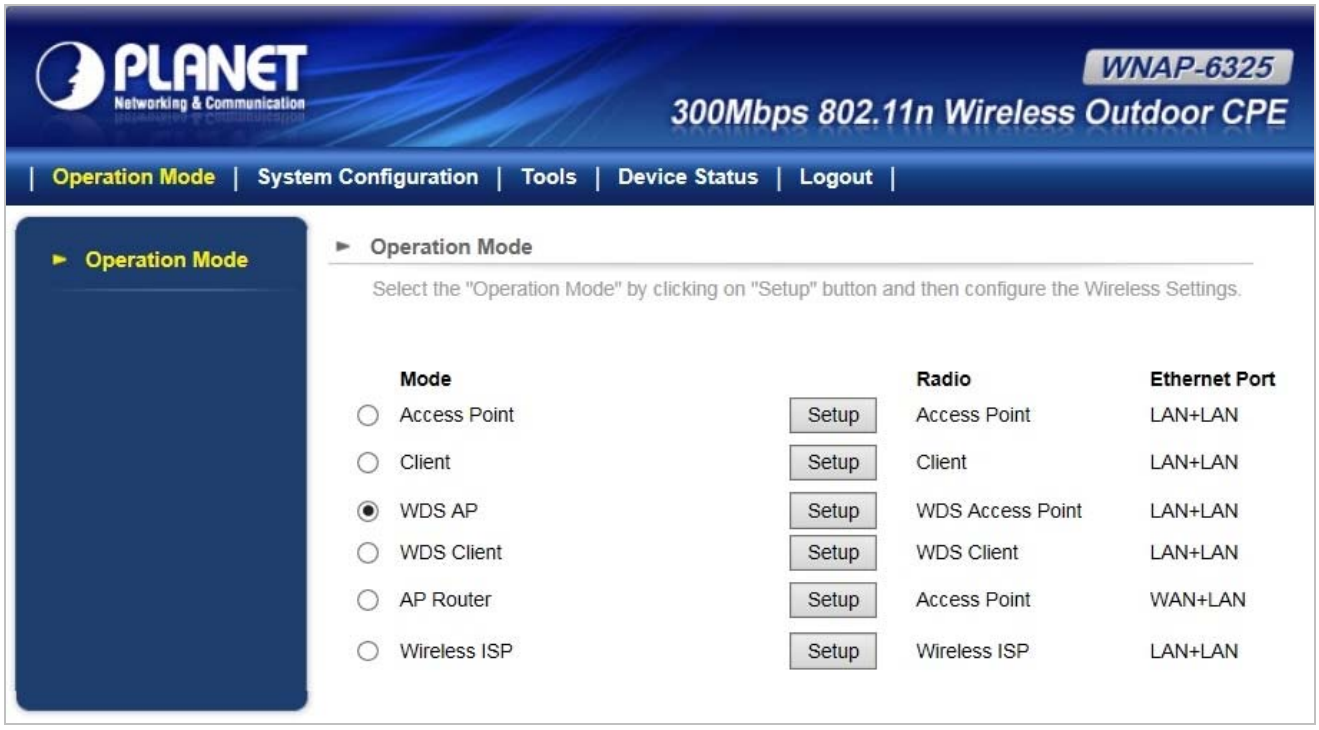


Figure 4-8 Choose Operation Mode

Step 3. Please enter the SSID and configure your Encryption Settings, Pre-Shared Key, etc. Then click the **Save** button to make the configuration take effect immediately.

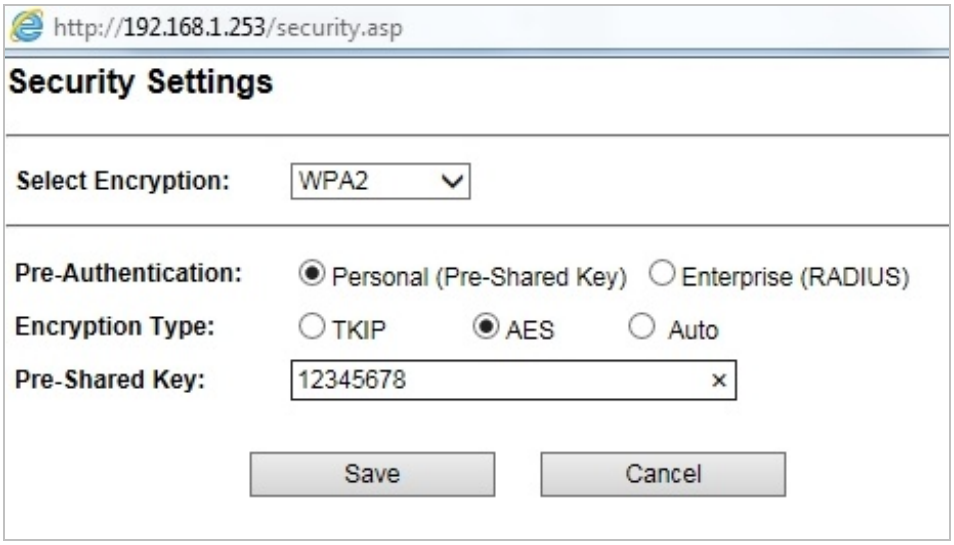


Figure 4-9 Configure Wireless Settings

Chapter 5. Configuring the AP

This chapter delivers a detailed presentation of AP's functionalities and features under 4 main menus (**Operation Mode**, **System Configuration**, **Tools** and **Device Status**) below, allowing you to manage the AP with ease.

Figure 5-1 Main Menu

5.1 Operation Mode

On this page, you can select different operation modes of the WNAP-6325, including Access Point, Client, WDS AP, WDS Client, AP Router and Wireless ISP.

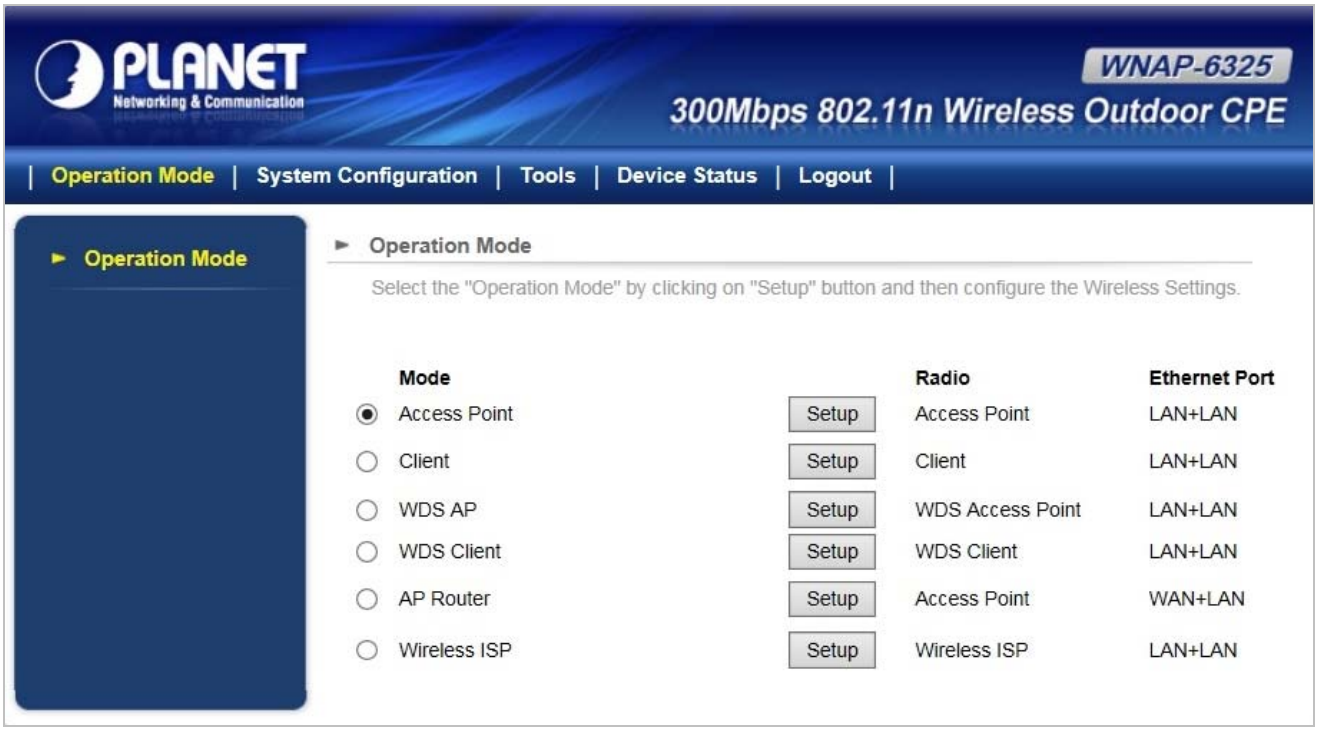


Figure 5-2 Operation Mode

5.1.1 Access Point

Click "**Operation Mode**" → "**Access Point**" and the following page will be displayed. This section allows you to configure the Access Point mode.

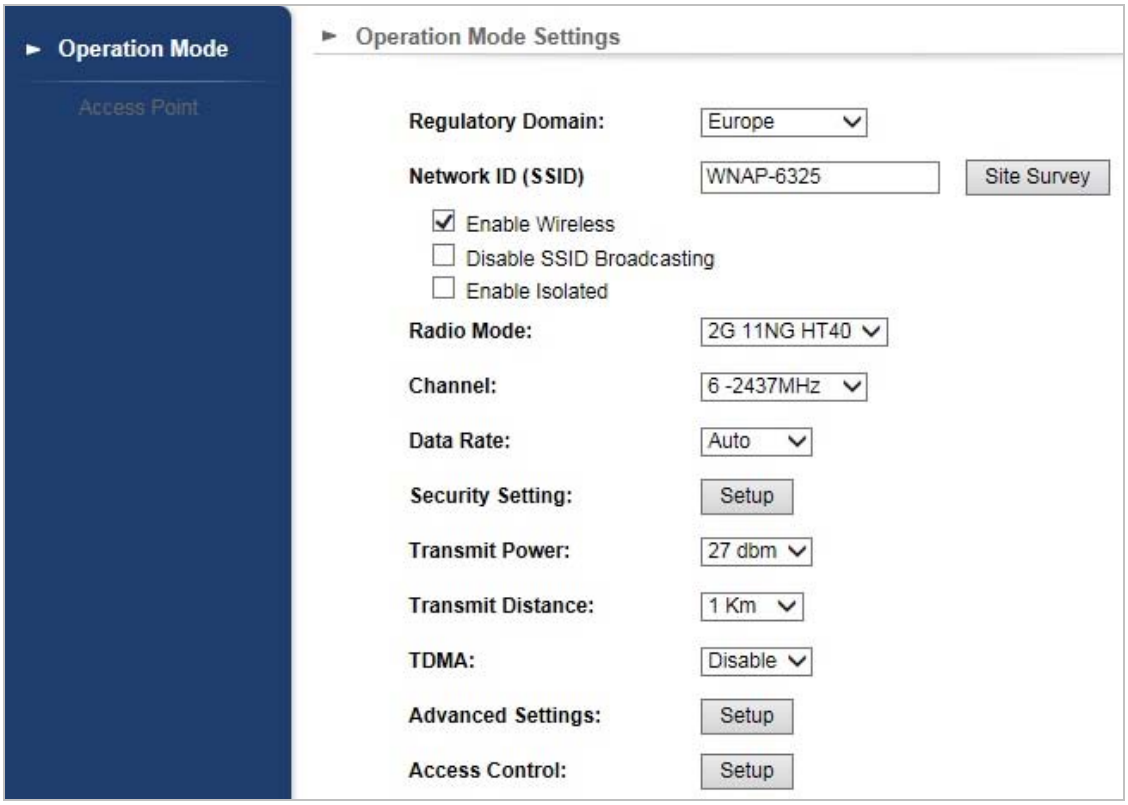


Figure 5-3 Basic Settings - AP

Object	Description
• **Regulatory Domain**	Select your domain from the list.
• **Network SSID**	It is the wireless network name. The default SSID is **WNAP-6325.**
• **Site Survey**	Click "**Site Survey**" to check the signal of remote sites.
• **Enable Wireless**	Check it to enable Wireless function.
• **Disable SSID Broadcasting**	Check it to disable SSID broadcasting.
Enable Isolated	Check it to isolate each connected wireless clients so that they cannot access each other.
Radio Mode	Select the channel width to "**Auto Select**", "**2G 11NG HT20**" or "**2G 11NG HT40**"
• **Channel**	Select the operating channel you would like to use. The channel range will be changed by selecting a different domain.
• **Data Rate**	Select MCS0~15 or Auto from the pull-down menu. The default is "**Auto**".
• **Security Setting**	Press "Setup" for more configurations. Please refer to 5.1.7 Security Setting for more information.
• **Transmit Power**	The range of transmit power is "**12~27 dbm**". In case of shortening the distance and the coverage of the wireless

	network, input a smaller value to reduce the radio transmission power.
• **Transmit Distance**	Select a specified distance of the two nodes.
• **TDMA**	Displays the System Time.
• **Advanced Settings**	Press "**Setup**" for more configurations. Please refer to 5.1.8 Advanced Settings for more information.
• **Access Control**	Press "**Setup**" for more configurations. Please refer to 5.1.9 Access Control for more information.

5.1.2 Client

Click "**Operation Mode**" → "**Client**" and the following page will be displayed. This section allows you to configure the Client mode.

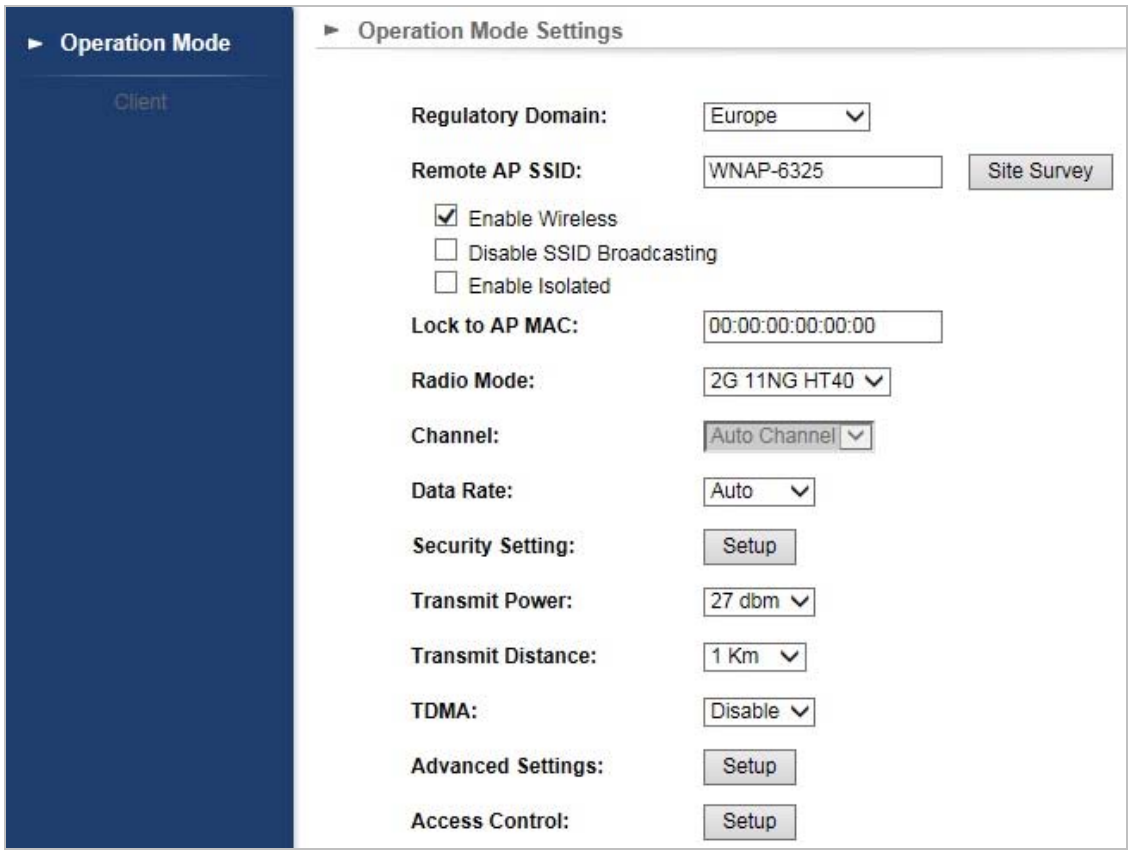


Figure 5-4 Basic Settings - Client

Object	Description
• **Regulatory Domain**	Select your domain from the list.
• **Network SSID**	It is the wireless network name. The default SSID is **WNAP-6325.**
• **Site Survey**	Click "**Site Survey**" to find the remote sites to associate.
• **Enable Wireless**	Check it to enable Wireless function.

• **Disable SSID Broadcasting**	Check it to disable SSID broadcasting.
Enable Isolated	Check it to isolate each connected wireless clients so that they cannot access each other.
Lock to AP MAC	Enter the Mac address of the remote AP.
Radio Mode	Select the channel width to "**Auto Select**", "**2G 11NG HT20**" or "**2G 11NG HT40**"
• **Data Rate**	Select MCS0~15 or Auto from the pull-down menu. The default is "**Auto**".
• **Security Setting**	Press "**Setup**" for more configurations. Please refer to 5.1.7 Security Setting for more information.
• **Transmit Power**	The range of Transmit power is "**12~27 dbm**". In case of shortening the distance and the coverage of the wireless network, input a smaller value to reduce the radio transmission power.
• **Transmit Distance**	Select a specified distance of the two nodes.
• **TDMA**	Displays the System Time.
• **Advanced Settings**	Press "**Setup**" for more configurations. Please refer to 5.1.8 Advanced Settings for more information.
• **Access Control**	Press "**Setup**" for more configurations. Please refer to 5.1.9 Access Control for more information.

5.1.3 WDS AP

Click "**Operation Mode**" → "**WDS AP**" and the following page will be displayed. This section allows you to configure the WDS AP mode. For each wireless parameter, please refer to section **5.1.1 AP** for more information.

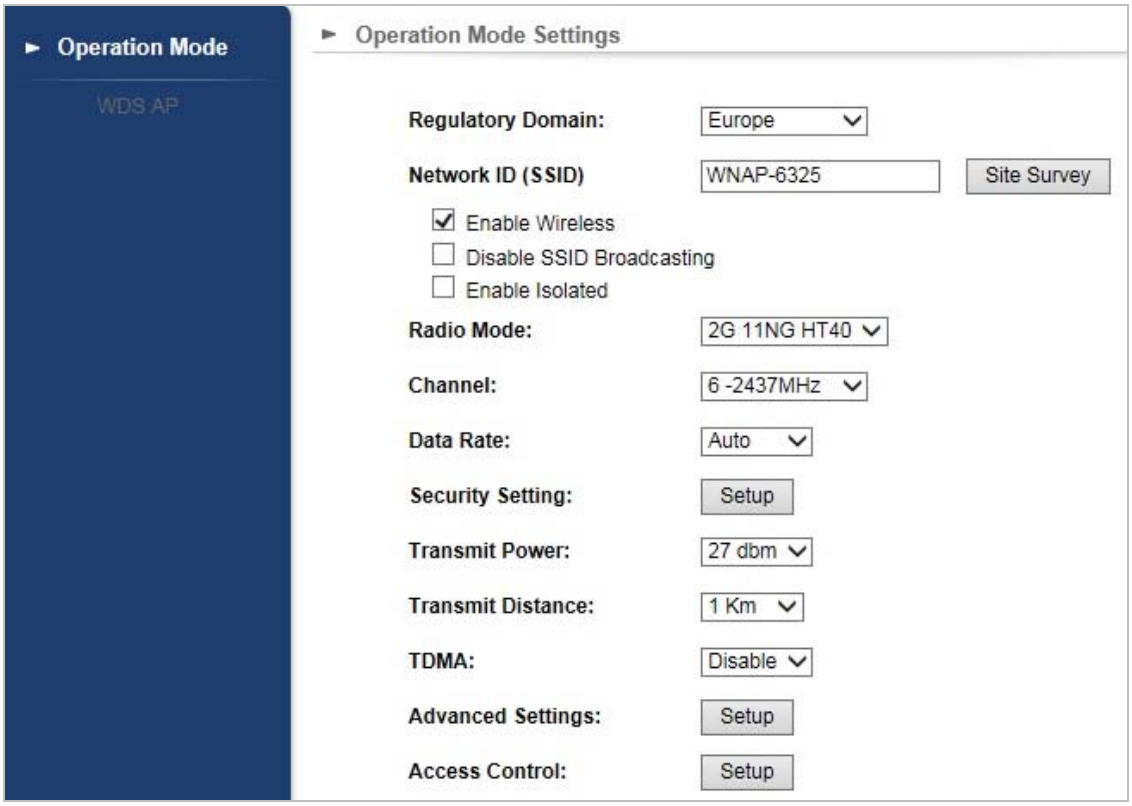


Figure 5-5 Basic Settings – WDS AP

5.1.4 WDS Client

Click "**Operation Mode**" → "**WDS Client**" and the following page will be displayed. This section allows you to configure the WDS Client mode. For each wireless parameter, please refer to section **5.1.2 Client** for more information.

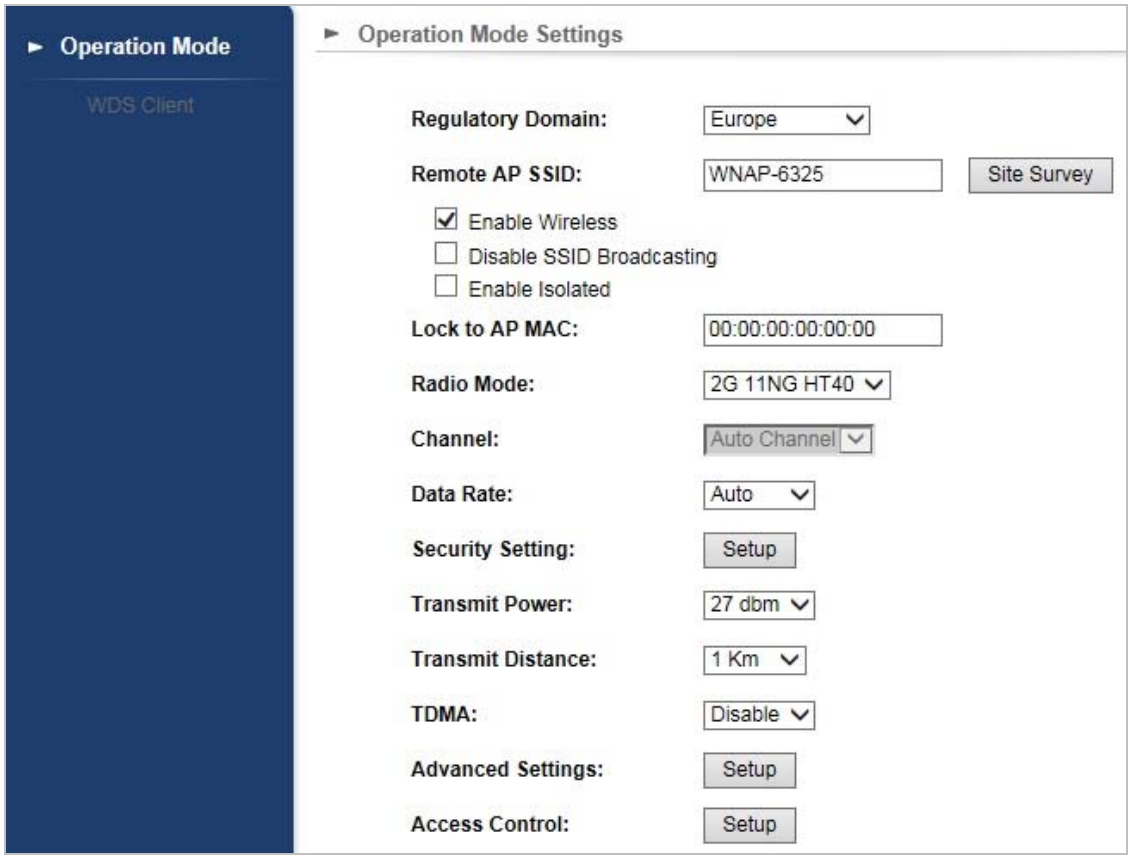


Figure 5-6 Basic Settings – WDS Client

5.1.5 AP Router

Click "**Operation Mode**" → "**AP Router**" and the following page will be displayed. This section allows you to configure the AP Router mode.

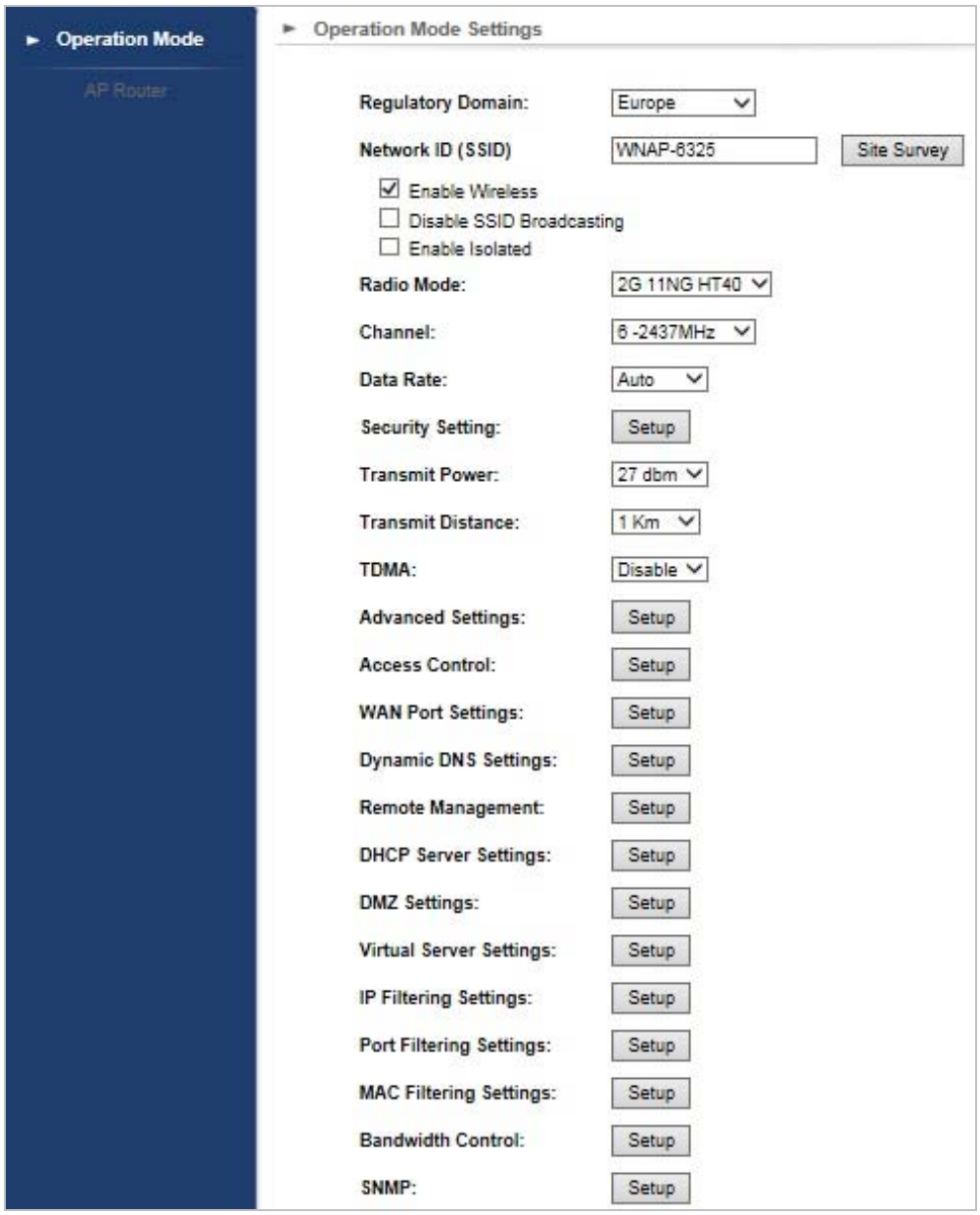


Figure 5-7 Basic Settings – AP Router

5.1.6 Wireless ISP

Click "**Operation Mode**" → "**Wireless ISP**" and the following page will be displayed. This section allows you to configure the Wireless ISP mode.

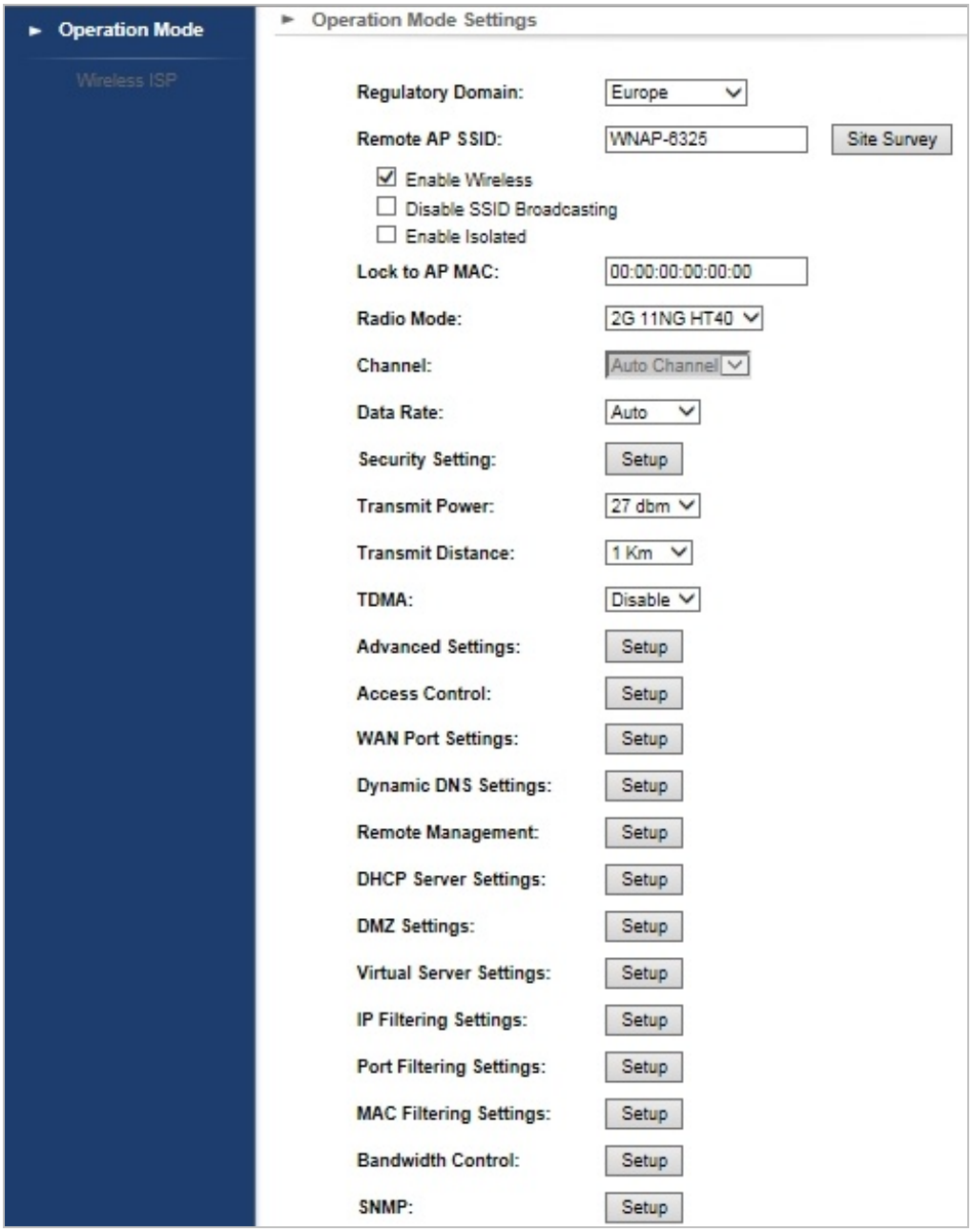


Figure 5-8 Basic Settings – WISP

5.1.7 Security Setting

Choose the operation mode you required, and then enter "**Security Setting**" by clicking the **Setup** button next to it and the following page will be displayed. This section allows you to configure the wireless security settings.

Figure 5-9 Security Settings

Object	Description
• **Select Encryption**	Select the encryption that you need. **None:** No security required **WEP:** Input 5, 13 (ASCII) or 10, 26 (HEX) character for WEP key. **WPA:** Enter ASCII characters between 8 and 63 character or 8 to 64 hexadecimal characters. **WPA2:** Enter ASCII characters between 8 and 63 character or 8 to 64 hexadecimal characters. **WPA-Mixed:** Enter ASCII characters between 8 and 63 character or 8 to 64 hexadecimal characters.

■ **None**

Authentication is disabled and no password/key is required to connect to the access point.

■ **WEP**

WEP (Wired Equivalent Privacy) is a basic encryption. For a higher level of security consider using the WPA encryption.

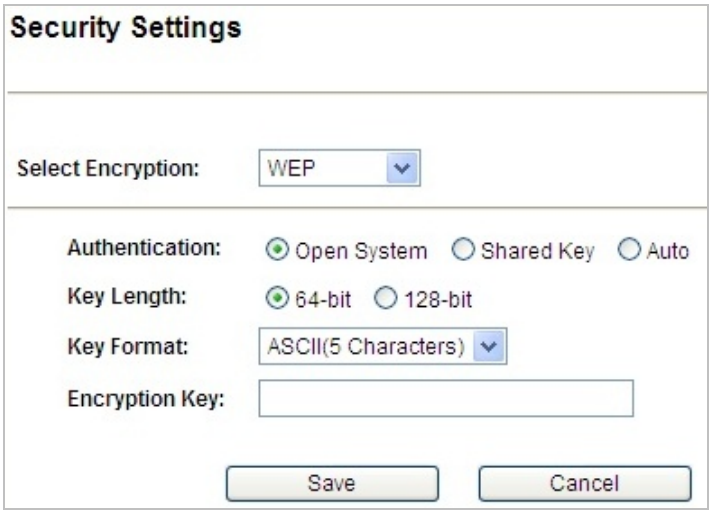


Figure 5-10 Security Settings – WEP

Object	Description
• **Authentication**	You can select **Open System**, **Shared Key** or **Auto**.
• **Key Length**	Choose the WEP key length. You can choose **64-bit** or **128-bit**.
• **Key Format**	You can choose **ASCII** or **Hex**.
• **Encryption Key**	Enter the keys in the fields.

■ **WPA**

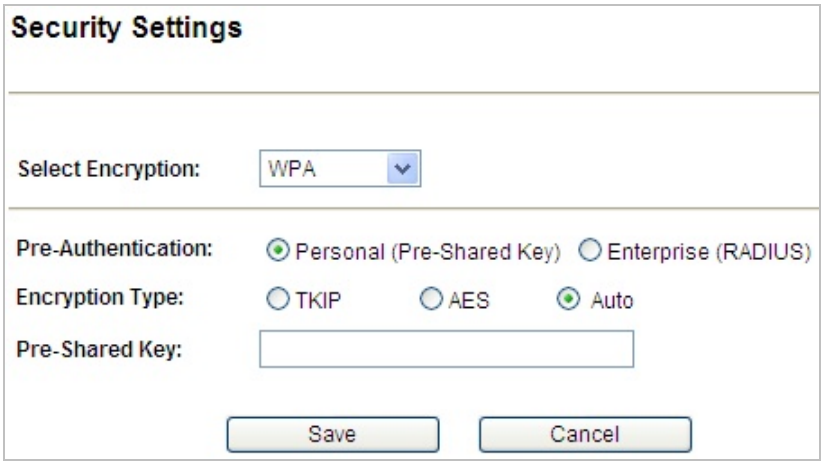


Figure 5-11 Security Settings – WPA Personal

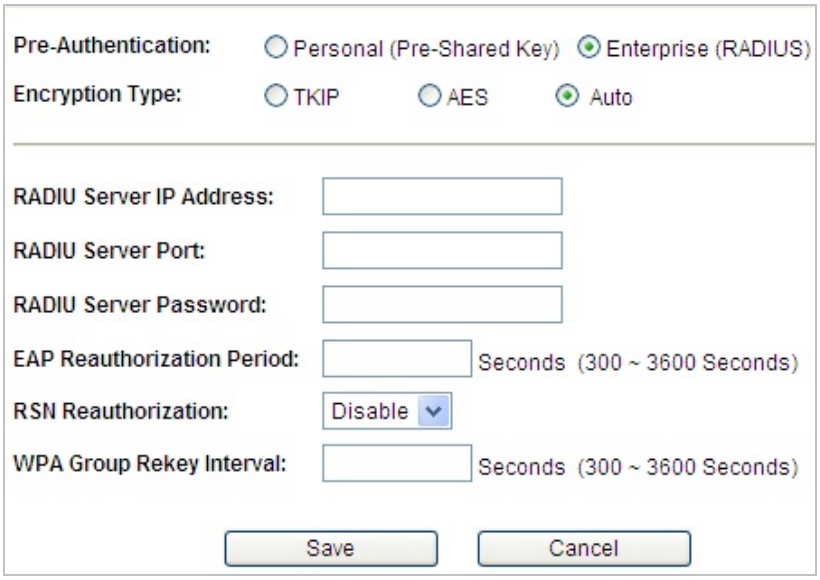


Figure 5-12 Security Settings – WPA Enterprise

Object	Description
• **Pre-Authentication**	Select "**Personal (Pre-Shared Key)**" or "**Enterprise (RADIUS)**" encryption type.
• **Encryption Type**	Set the WPA to be **TKIP**, **AES** or **Auto**.
• **Pre-Shared Key**	Enter the keys in the fields.
• **RADIU Server IP Address**	Enter the RADIUS server host IP address.
• **RADIU Server Port**	Set the UDP port used in the authentication protocol of the RADIUS server. Value must be between 1 and 65535.
• **RADIU Server Password**	Enter a shared secret/password between 1 and 99 characters in length.

• **EAP Reauthorization Period**	Set duration of session timeout in seconds between 300 and 3600.
• **RSN Reauthorization**	Enable or disable RSN reauthorization.
• **WPA Group Rekey Interval**	Set duration of session timeout in seconds between 300 and 3600.

■ **WPA2**

Please refer to WPA for more information.

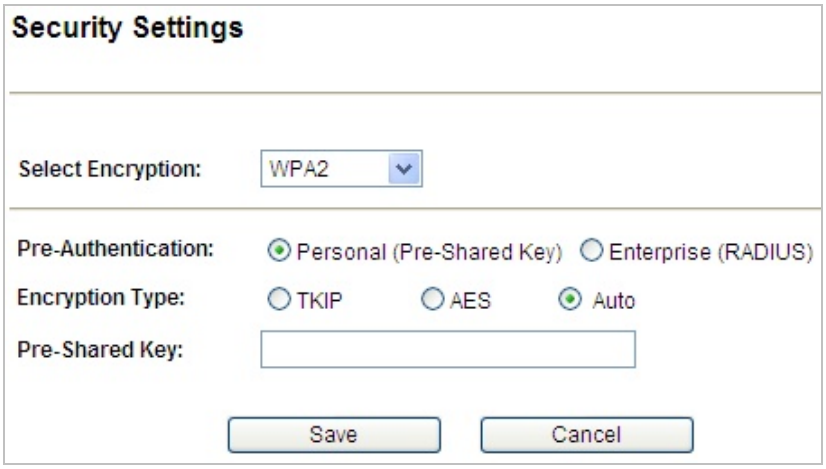


Figure 5-13 Security Settings – WPA2 Personal

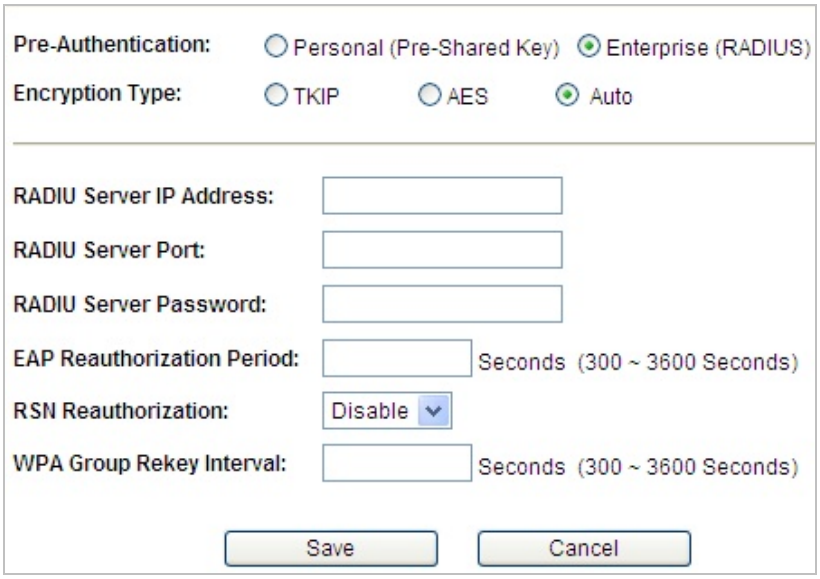


Figure 5-14 Security Settings – WPA2 Enterprise

■ **WPA-Mixed**

Please refer to WPA for more information.

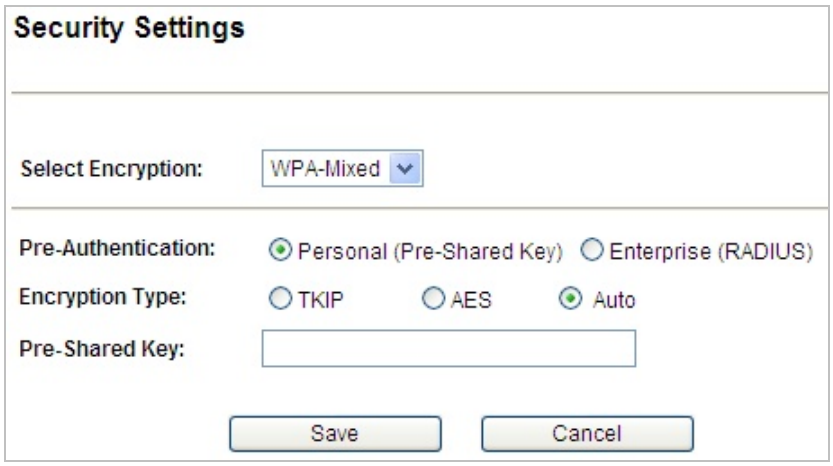


Figure 5-15 Security Settings – WPA-Mixed Personal

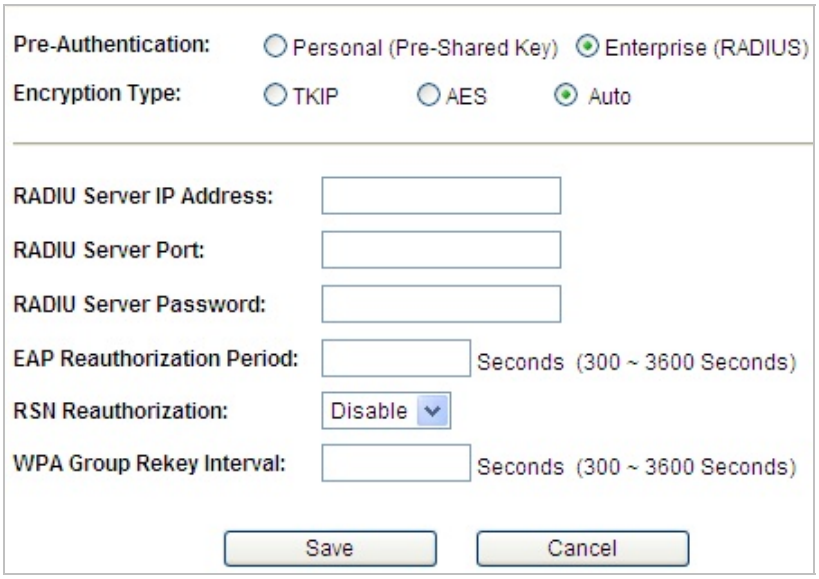


Figure 5-16 Security Settings – WPA-Mixed Enterprise

5.1.8 Advanced Settings

Choose the operation mode you require, and then enter "**Advanced Settings**" by clicking **Setup** button next to it and the following page will be displayed. This section allows you to configure the wireless advanced settings.

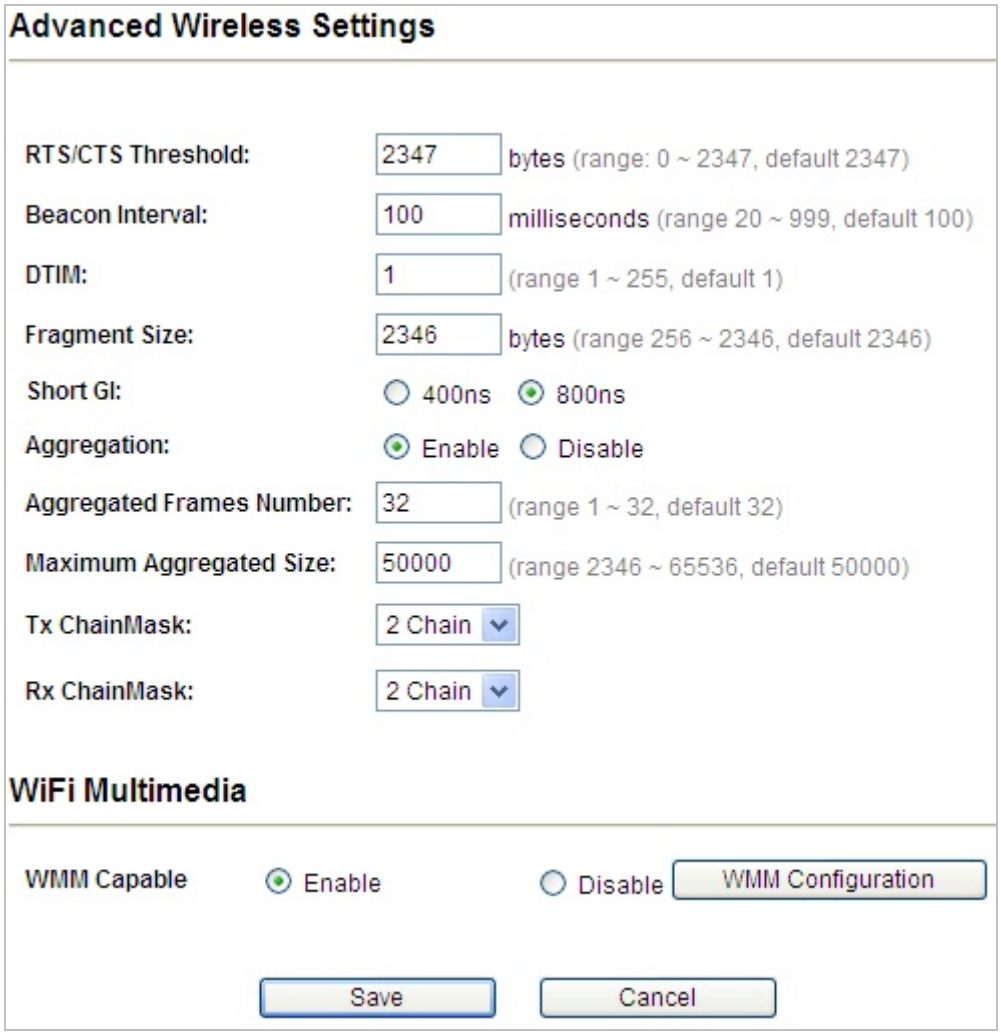


Figure 5-17 Advanced Settings

Object	Description
• **RTS/CTS Threshold**	When the length of a data packet exceeds this value, the router will send an RTS frame to the destination wireless node, and the latter will reply with a CTS frame, and thus they are ready to communicate. The default value is 2347.
• **Beacon Interval**	Set beacon interval, the value range is from 20 to 999. The default value is 100.
• **DTIM**	Set the DTIM (delivery traffic indication message) period value of the wireless radio. The default value is 1.
• **Fragment Size**	A data packet that exceeds this value in length will be divided into multiple packets. The number of packets influences wireless network performance. Avoid setting this value low. Default at 2346.
• **Short GI**	Guard intervals are used to ensure that distinct transmissions do not interfere with one another. Only effect under Mixed Mode.
• **Aggregation**	A part of the 802.11n standard that allows sending multiple frames per

	single access to the medium by combining frames together into one larger frame. It creates the larger frame by combining smaller frames with the same physical source, destination end points, and traffic class (QoS) into one large frame with a common MAC header
• **Aggregated Frames Number**	Determines the number of frames combined in the new larger frame.
• **Maximum Aggregated Size**	Determines the size (in bytes) of the larger frame.
• **Tx ChainMask**	Displays the number of independent spatial data streams the device is transmitting (TX) and receiving (RX) simultaneously within one spectral channel of bandwidth. Multiple chains increase data transfer performance significantly.
• **Rx ChainMask**	Displays the number of independent spatial data streams the device is transmitting (TX) and receiving (RX) simultaneously within one spectral channel of bandwidth. Multiple chains increase data transfer performance significantly.
• **WMM Capable**	Wi-Fi Multimedia (WMM) is a Wi-Fi Alliance interoperability certification based on the IEEE 802.11e standard, which provides Quality of Service (QoS) features to IEE 802.11 networks. WMM prioritizes traffic according to four categories: background, best effort, video and voice.

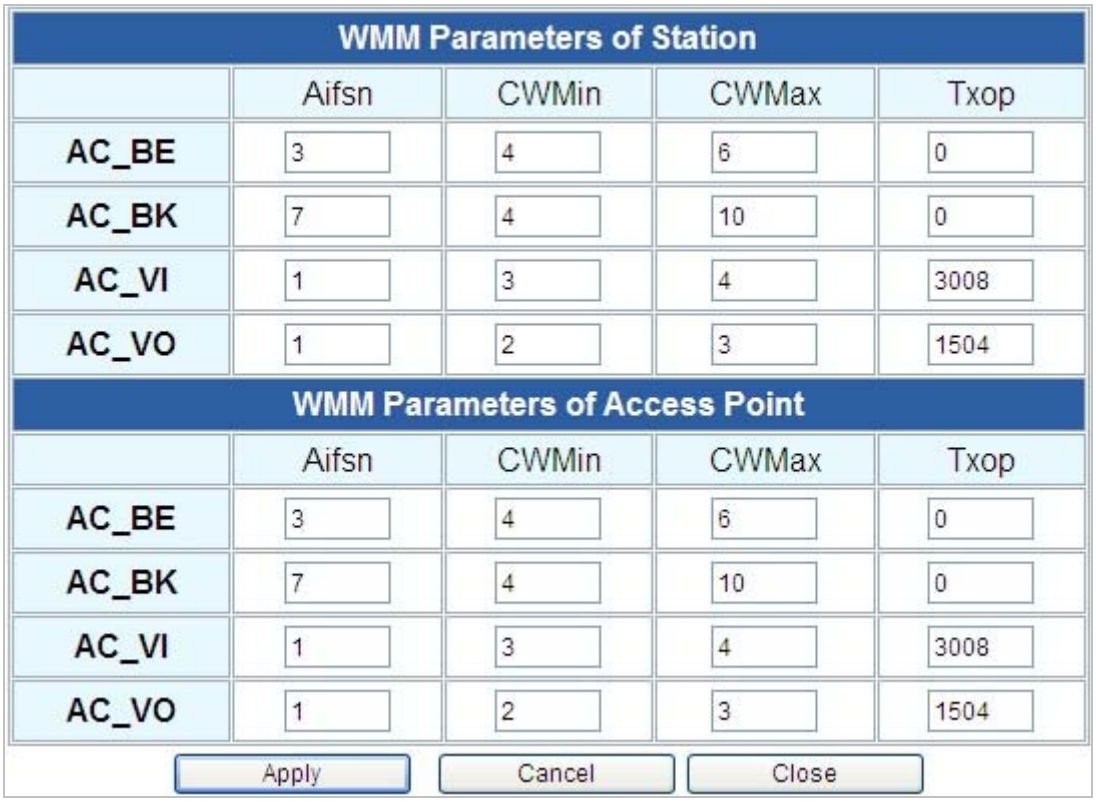


Figure 5-18 WMM Configuration

WMM Capable	
BE	Traditional IP data, medium throughput and delay.
BK	High throughput, non time sensitive bulk data e.g. FTP
VI	Time sensitive video data with minimum time delay.
VO	Time sensitive data such as VoIP and streaming media with minimum time delay.
Aifsn	Arbitration Inter-Frame Space (milliseconds): Specifies additional time between when a channel goes idle and the AP/client sends data frames. Traffic with a lower AIFSN value has a higher priority.
CWMin	Maximum Contention Window (milliseconds): This value is the upper limit to random backoff value doubling (see above).
CWMax	Arbitration Inter-Frame Space (milliseconds): Specifies additional time between when a channel goes idle and the AP/client sends data frames. Traffic with a lower AIFSN value has a higher priority.
Txop	Transmission Opportunity (milliseconds): The maximum interval of time an AP/client can transmit. This makes channel access more efficiently prioritized. A value of 0 means only one frame per transmission. A greater value effects higher priority.

5.1.9 Access Control

Choose the operation mode you require, and then enter "**Access Control**" by clicking the **Setup** button next to it and the following page will be displayed. This section allows you to configure the wireless access control settings.

Figure 5-19 Access Control

Object	Description
Wireless Access Control Mode	You can choose "**Disable**", "**Allow Listed**" or "**Deny Listed**".
Mac Address	The MAC address to be filtered.
Comment	Enter a comment of this setting.

5.1.10 WAN Port Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**WAN Port Settings**" by clicking the **Setup** button next to it. This section allows you to configure the internet connection settings.

■ **DHCP (Auto Config)**

Choose "**DHCP**" and the router will automatically obtain IP addresses, subnet masks and gateway addresses from your ISP.

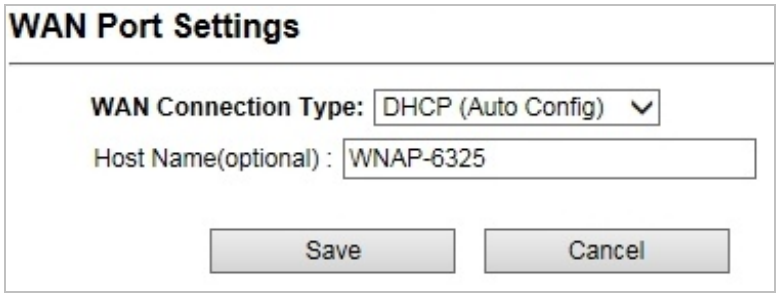


Figure 5-20 WAN Port Settings – DHCP

■ Static Mode (Fixed IP)

If your ISP offers you static IP Internet connection type, select "**Static Mode**" and then enter IP address, subnet mask, primary DNS and secondary DNS information provided by your ISP in the corresponding fields.

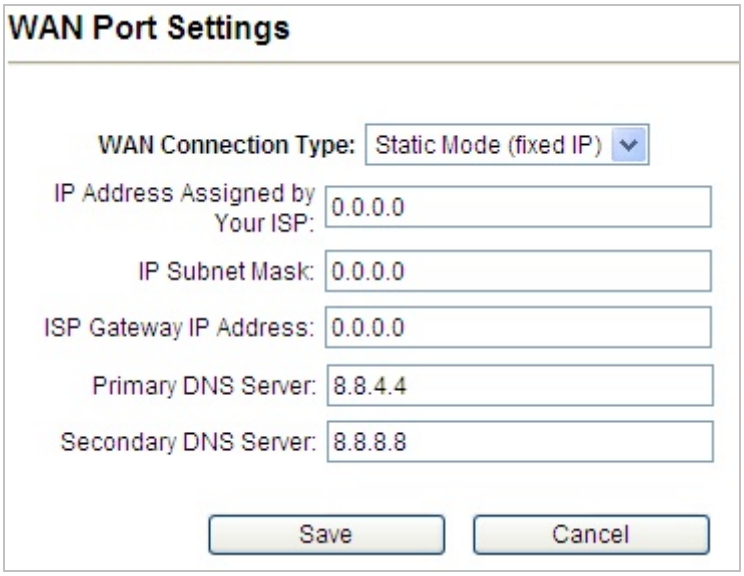


Figure 5-21 WAN Port Settings – Static IP

Object	Description
• **IP Address Assigned by Your ISP**	Enter the WAN IP address provided by your ISP. Enquire your ISP if you are not clear.
• **IP Subnet Mask**	Enter WAN Subnet Mask provided by your ISP.
• **ISP Gateway IP Address**	Enter the WAN Gateway address provided by your ISP.
• **Primary DNS Server**	Enter the necessary DNS address provided by your ISP. Default is 8.8.4.4.
• **Secondary DNS Server**	Enter the other DNS address if your ISP provides you with 2 such addresses. Default is 8.8.8.8.

■ PPPOE (ADSL)

Select **PPPOE** if your ISP is using a PPPoE connection and provide you with PPPoE user name and password info.

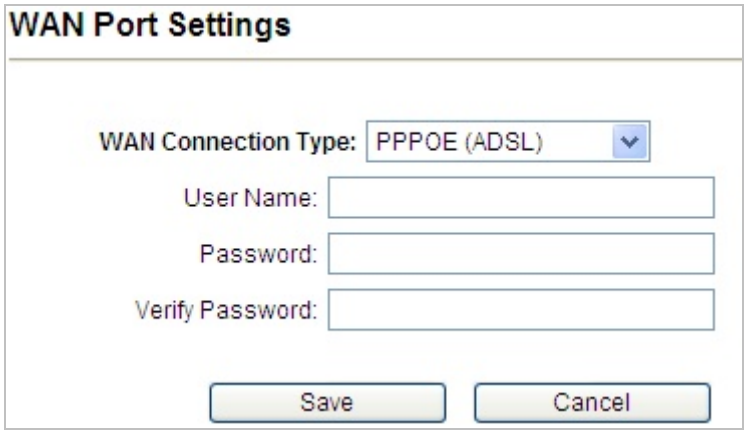


Figure 5-22 WAN Port Settings – PPPOE

Object	Description
• **User Name**	Enter the User Name provided by your ISP.
• **Password**	Enter the password provided by your ISP.
• **Verify Password**	Enter the password again to verify if it is correct.

5.1.11 Dynamic DNS Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**Dynamic DNS Settings**" by clicking the **Setup** button next to it. This section allows you to configure the DDNS settings.

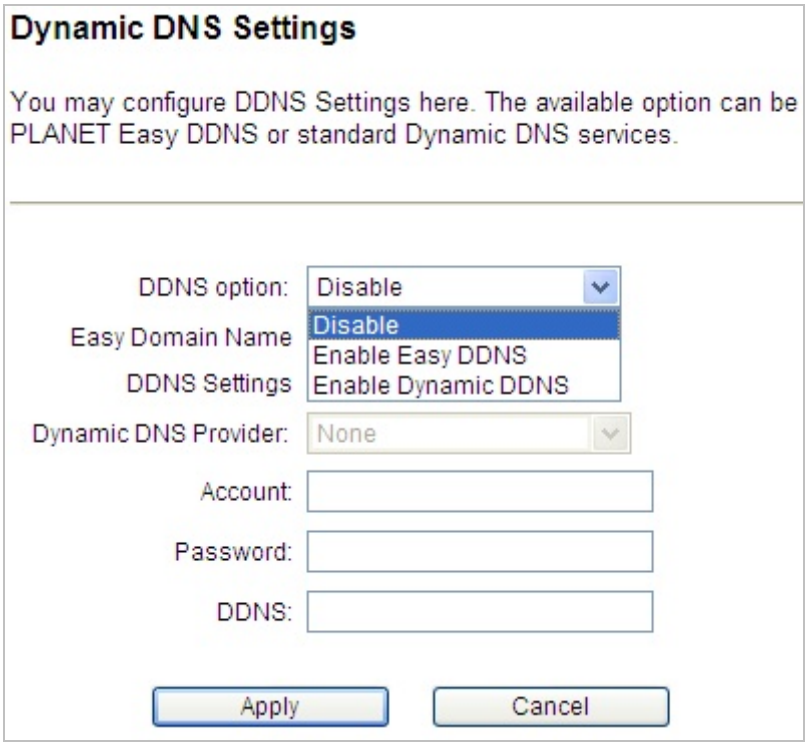


Figure 5-23 Dynamic DNS Settings

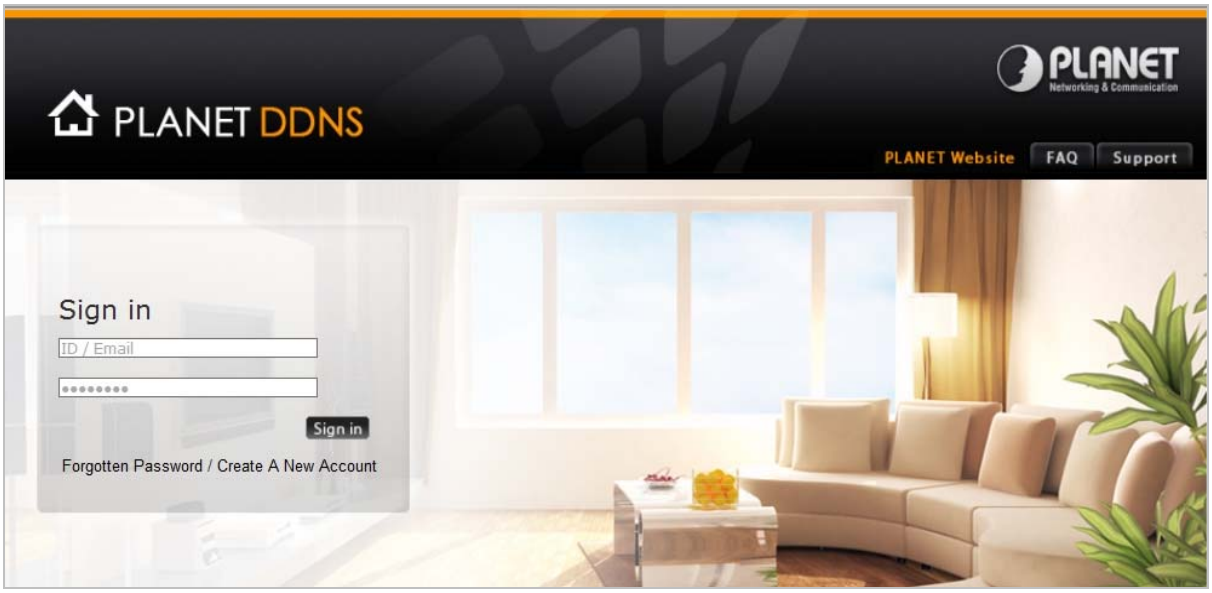
Object	Description
• **DDNS option**	**Disable:** Disable DDNS function **Enable Easy DDNS:** Enable PLANET Easy DDNS **Enable Dynamic DDNS:** You are allowed to modify the DDNS settings.
• **Dynamic DNS Provider**	Select a server provider or disable the existing server.
• **Account**	Enter the DDNS user name of the DDNS account.
• **Password**	Enter the DDNS password of the DDNS account.
• **DDNS**	Enter the host name or domain name provided by DDNS provider.

Example of Planet DDNS Settings:

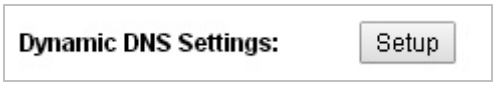
Note

Please go to http://www.planetddns.com/ to register a Planet DDNS account.

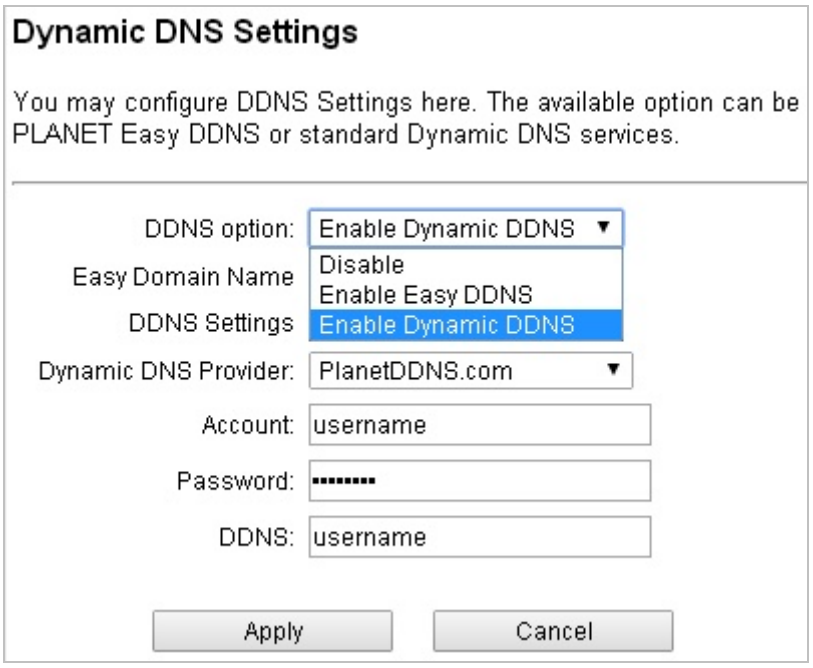
Please refer to the FAQ (http://www.planetddns.com/index.php/faq) for how to register a free account.



Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**", select **Dynamic DNS Settings** and press "**Setup**".



Step 1. Select "**Enable Dynamic DDNS**" and "**PlanetDDNS.com**" from the list of Dynamic DNS Provider to use the Planet DDNS service.



Step 2. Configure the DDNS account that has been registered in Planet DDNS website.

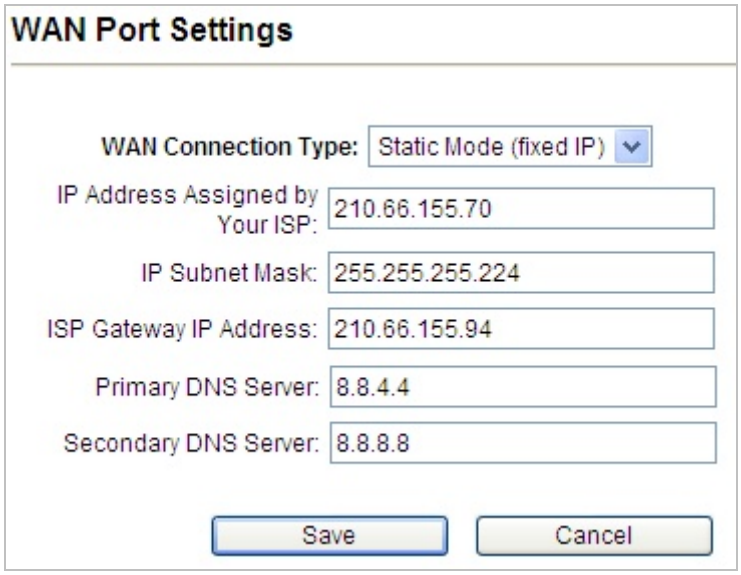
Account: Enter your DDNS host (format: xxx.planetddns.com, xxx is the registered domain name)

Password: Enter the password of your account.

DDNS: Enter your DDNS host again.

Step 3. Go to "**Remote Management**" to enable remote access from WAN port.

Step 4. Go to "**WAN Port Settings**" to configure WAN connection to Static Mode (fixed IP).



Step 5. Save the setting and connect your WAN port of the Wireless AP to the internet via Ethernet cable. In a remote computer, enter the DDNS host name as the figure shown below. Then, you should be able to login the WNAP-6325 remotely.

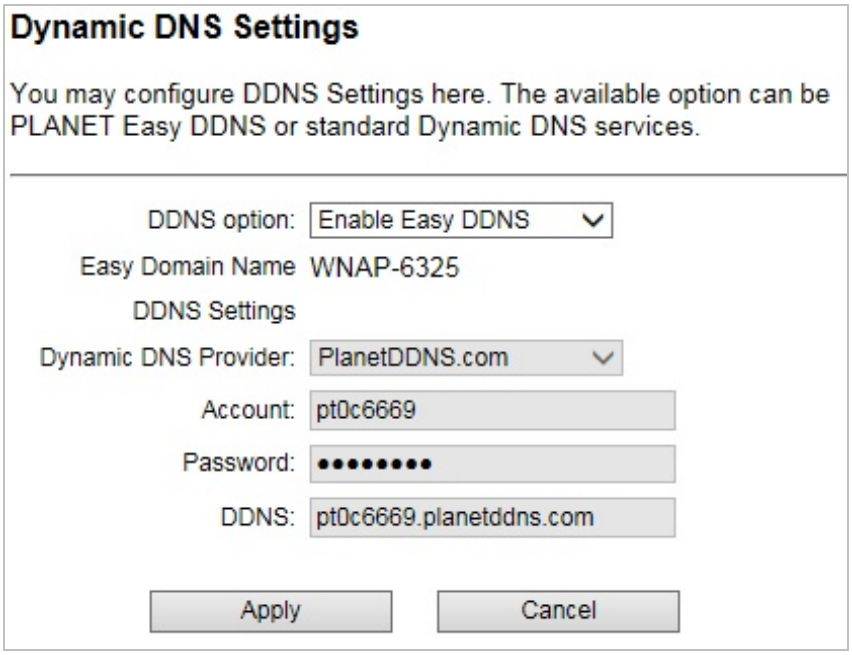
Example of Easy DDNS Settings:

Note: This service is not required to register any DDNS account.

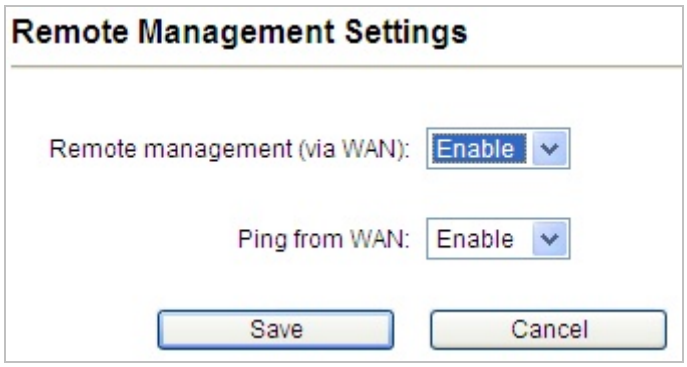
Please refer to the procedure listed as follows to configure using Planet Easy DDNS service.

Step 1. Select "**Enable Easy DDNS**" to use the Planet Easy DDNS service.

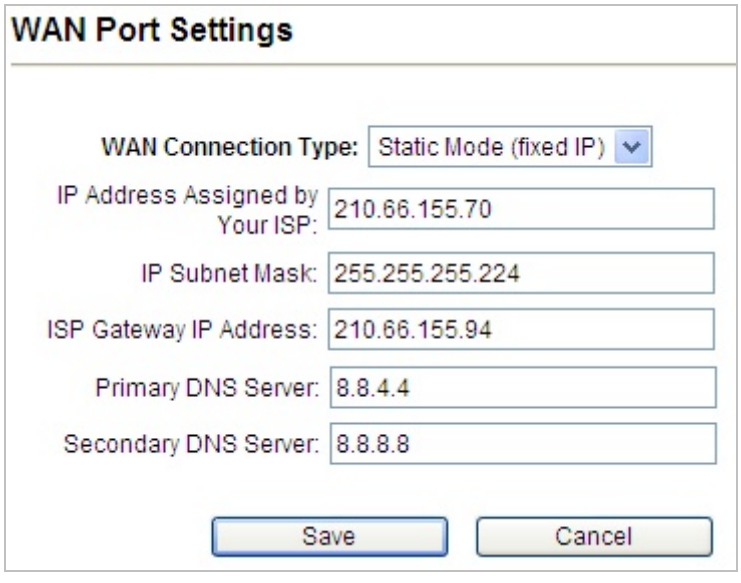
Easy Domain Name: Display the specified domain name for this device. (Format: ptxxxxxx.planetddns.com, xxxxxx is the last six-digit of the WAN Port MAC address)



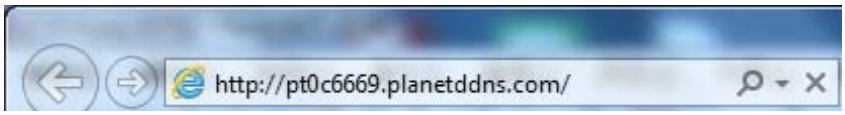
Step 2. Go to "**Remote Management**" to enable remote access from WAN port.



Step 3. Go to "**WAN Port Settings**" to configure WAN connection to Static Mode (fixed IP).



Step 6. Save the setting and connect your WAN port of the Wireless AP to the internet via Ethernet cable. In a remote computer, enter the Easy Domain Name displayed in **Step 1**. Then, you should be able to login the WNAP-6325 remotely.



5.1.12 Remote Management

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**Remote Management**" by clicking the **Setup** button next to it. This section allows you to enable or disable the remote management through the WAN port.

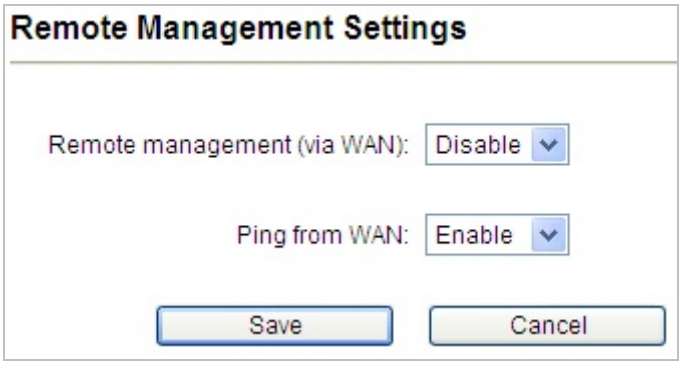


Figure 5-24 Remote Management

Object	Description
• **Remote management (via WAN)**	Enable or Disable this function.
• **Ping from WAN**	Enable or Disable this function.

5.1.13 DHCP Server Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**DHCP Server Settings**" by clicking the **Setup** button next to it. This section allows you to configure the DHCP server.

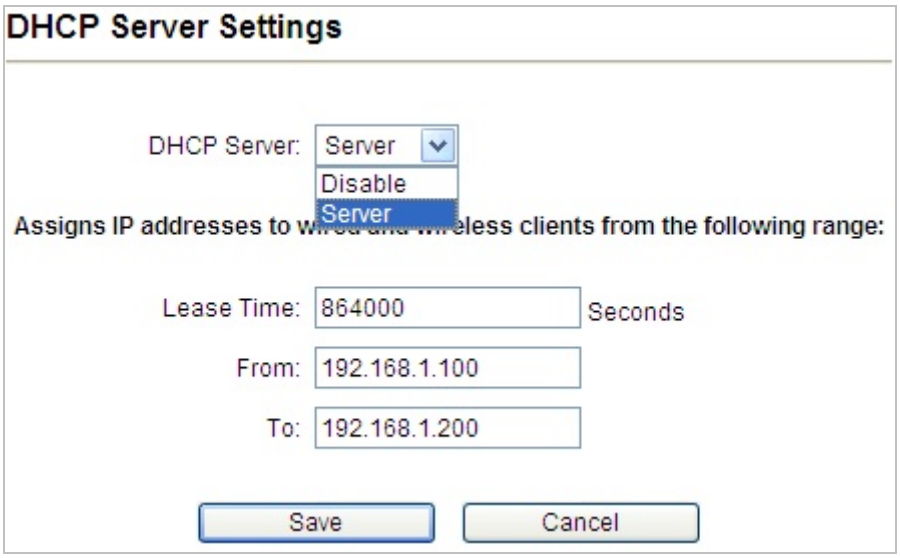


Figure 5-25 DHCP Server Settings

Object	Description
• **DHCP Server**	Select as DHCP server or disable the function.
• **Lease Time**	Select the time for using one assigned IP from the dropdown list. After the lease time, the AP automatically assigns new IP addresses to all connected computers.
• **From**	The start IP address of all the available successive IPs.
• **To**	The end IP address of all the available successive IPs.

5.1.14 DMZ Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**DMZ Settings**" by clicking the **Setup** button next to it. This section allows you to configure the DMZ server.

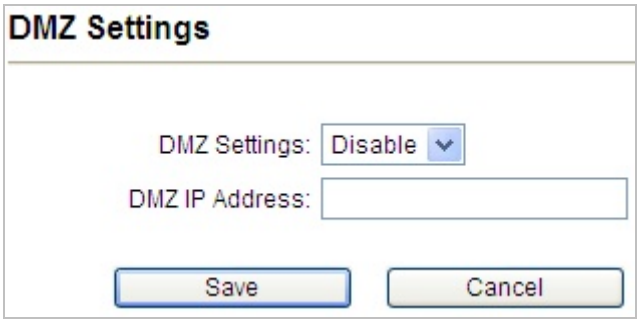


Figure 5-26 DMZ Settings

Object	Description
• **DMZ Setting**	Disable or Enable DMZ function.
• **DMZ IP Address**	Enter the DMZ IP address.

5.1.15 Virtual Server Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**Virtual Server Settings**" by clicking the **Setup** button next to it. This section allows you to configure the virtual server.

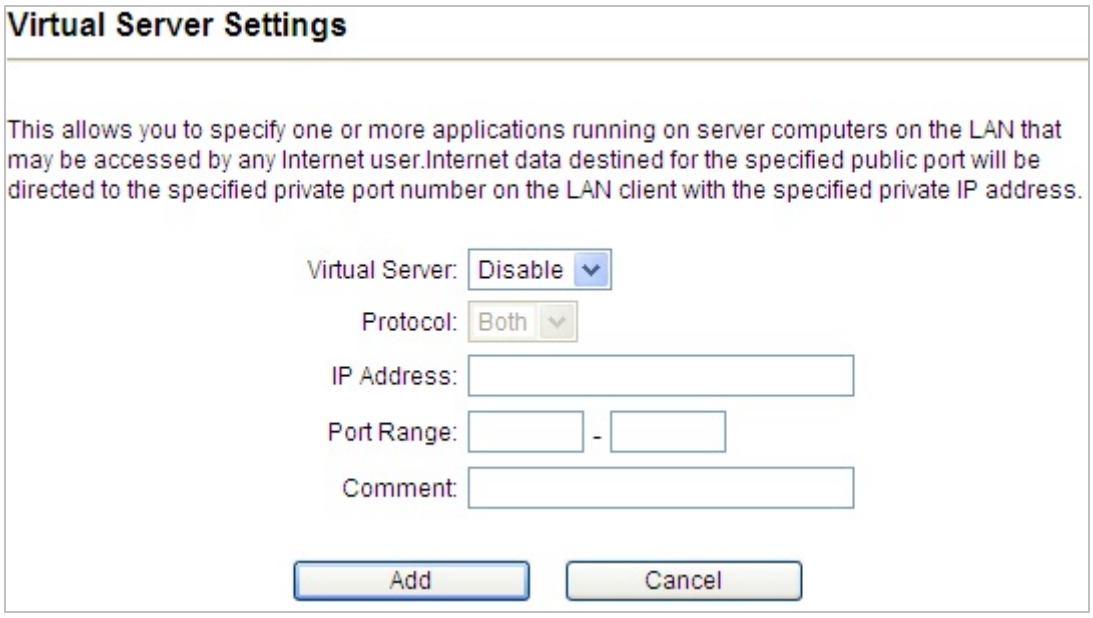


Figure 5-27 Virtual Server Settings

Object	Description
• **Virtual Server**	Enable or disable Virtual Server.
• **Protocol**	You can choose TCP, UDP or Both.
• **IP Address**	Enter the LAN IP.
• **Port Range**	Set the range of public port.
• **Comment**	Set a name for the rule.

5.1.16 IP Filtering Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**IP Filtering Settings**" by clicking the **Setup** button next to it. This section allows you to configure the IP filtering settings.

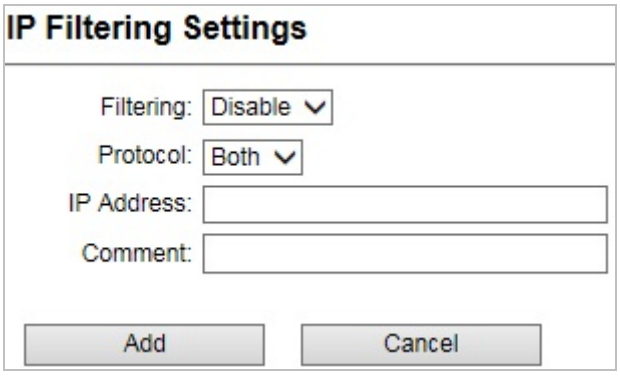


Figure 5-28 IP Filtering Settings

Object	Description
• **Filtering**	Enable or disable IP Filtering.
• **Protocol**	You can choose TCP, UDP or Both.
• **IP Address**	Enter the IP address to be filtered.
• **Comment**	Set a name for the rule.

5.1.17 Port Filtering Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**Port Filtering Settings**" by clicking the **Setup** button next to it. This section allows you to configure the port filtering settings.

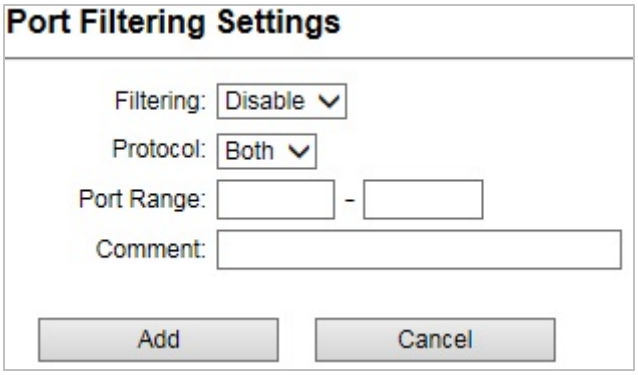


Figure 5-29 Port Filtering Settings

Object	Description
• **Filtering**	Enable or disable IP Filtering.
• **Protocol**	You can choose TCP, UDP or Both.
• **Port Range**	Enter the range of Port to be filtered.
• **Comment**	Set a name for the rule.

5.1.18 MAC Filtering Settings

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**Mac Filtering Settings**" by clicking the **Setup** button next to it. This section allows you to configure the MAC filtering settings.

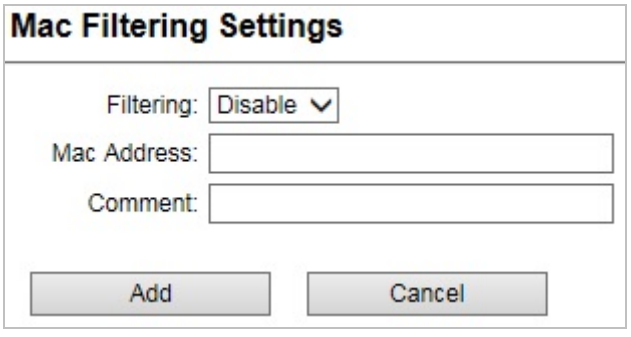


Figure 5-30 Mac Filtering Settings

Object	Description
• **Filtering**	Enable or disable Mac Filtering.
• **Mac Address**	Enter the Mac address to be filtered.
• **Comment**	Set a name for the rule.

5.1.19 Bandwidth Control

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**Bandwidth Control**" by clicking the **Setup** button next to it. This section allows you to configure the bandwidth control.

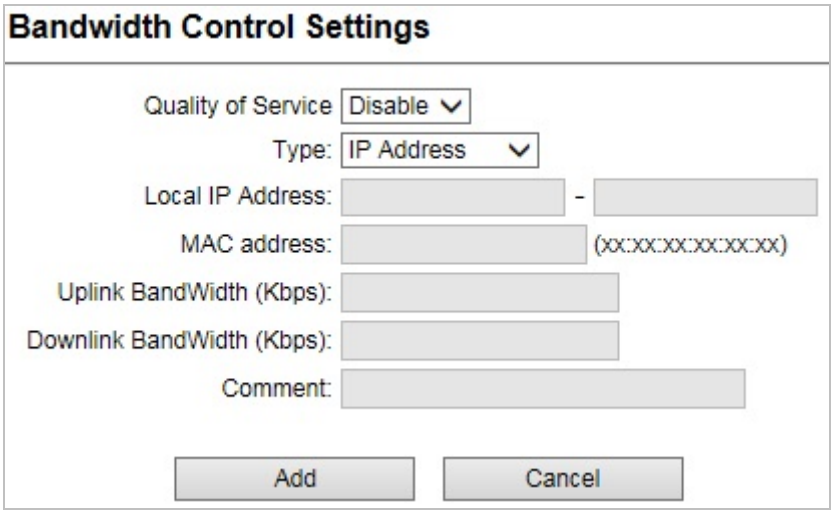


Figure 5-31 Bandwidth Control Settings

Object	Description
• **Quality of Service**	Enable or disable the QoS service.
• **Type**	Select QoS type **IP Address** or **Mac Address**.
• **Local IP Address**	The IP address segment which uses this QoS rule.
• **MAC Address**	The Mac address which uses this QoS rule.
• **Uplink BandWidth (Kbps)**	Set the maximum uplink bandwidth allowed by the listed QoS rules.
• **Downlink BandWidth (Kbps)**	Set the maximum downlink bandwidth allowed by the listed QoS rules.
• **Comment**	Set a name for the rule.

5.1.20 SNMP

Click "**Operation Mode**" → "**AP Router**" or "**Wireless ISP**" and then enter the "**SNMP**" by clicking the **Setup** button next to it. This section allows you to configure the SNMP.

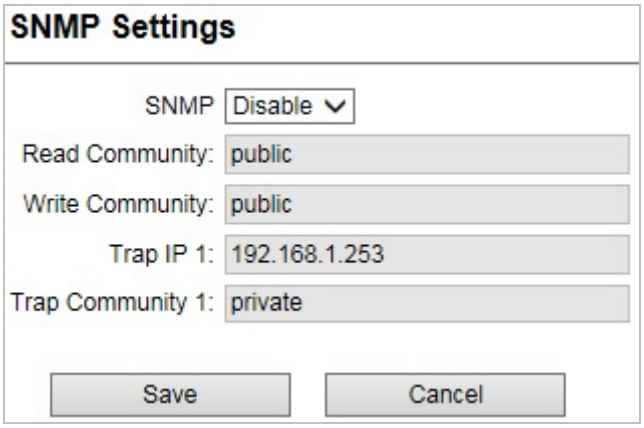


Figure 5-32 SNMP Settings

Object	Description
• **SNMP**	Enable or disable the SNMP service.
• **Read Community**	Enter a Read Community name for verification with the SNMP manager for SNMP Read requests.
• **Write Community**	Enter a Write Community name for verification with the SNMP manager for SNMP Write requests.
• **Trap IP 1**	Enter the Trap IP address.
• **Trap Community**	Enter an SNMP Trap Community name for verification with the SNMP manager for SNMP Trap requests.

5.2 System Configuration

On this page, you can configure the system of the WNAP-6325, including IP settings, Time settings, Password settings, System management, Ping Watchdog, Firmware upgrade, Configuration save and restore, Factory default, Reboot and Schedule reboot.

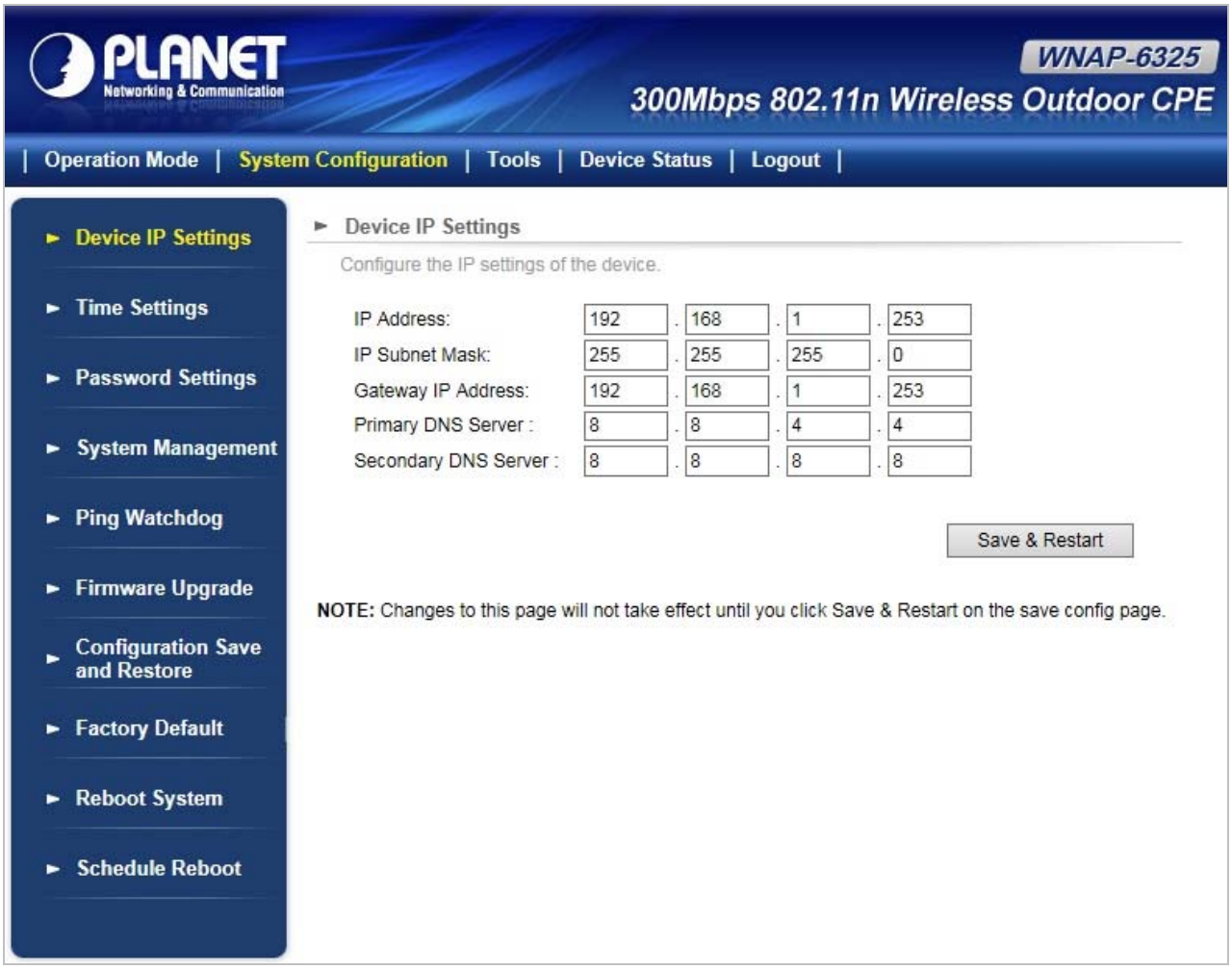


Figure 5-33 System Configuration default page

5.2.1 Default IP Settings

Click "**System Configuration**" → "**Device IP Settings**" and the following page will be displayed.

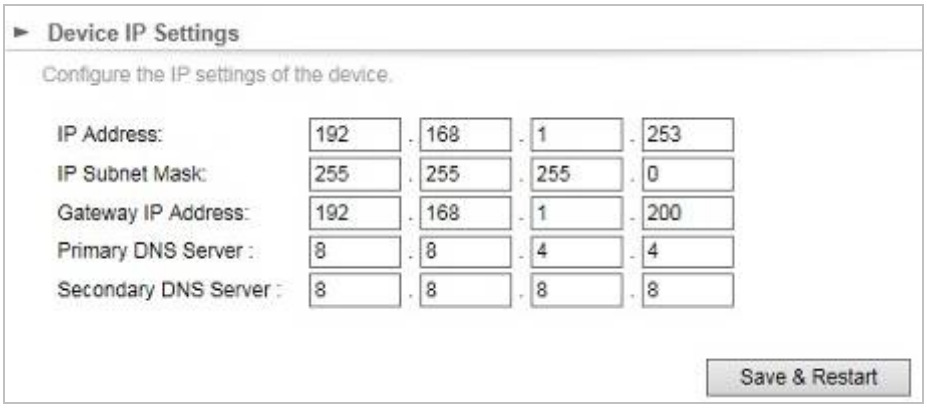


Figure 5-34 Default IP Settings

The page includes the following fields:

Object	Description
• **IP Address**	WNAP-6325's LAN IP. The default is **192.168.1.253**. You can change it according to your needs.
• **IP Subnet Mask**	WNAP-6325's LAN subnet mask.
• **Gateway IP Address**	The Gateway IP address of WNAP-6325.
• **Primary DNS Server**	Enter the DNS server. The default is 8.8.4.4.
• **Secondary DNS Server**	Enter the DNS server. The default is 8.8.8.8.

5.2.2 Time Settings

Click "**System Configuration**" → "**Time Settings**" and the following page will be displayed.

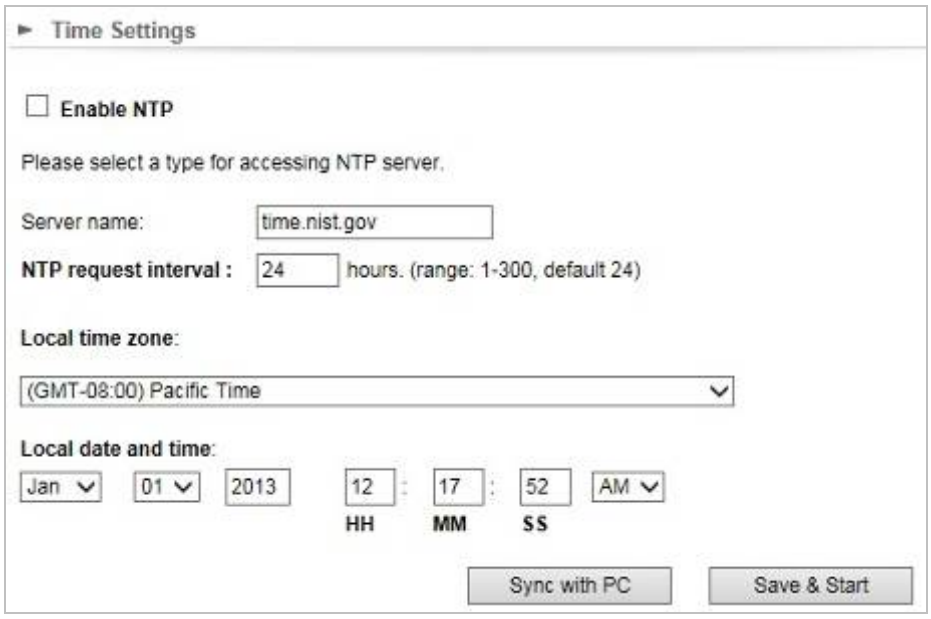


Figure 5-35 Time Settings

Object	Description
• **Enable NTP**	Enable it to support NTP (Network Time Protocol) for automatic time and date setup.
• **Server Name**	Enter the host name or IP address of the time server if you wish.
• **NTP Request Interval**	Specify a frequency (in hours) for the access point to update/synchronize with the NTP server.
• **Local Time Zone**	Select the time zone of your country/ region. If your country/region is not listed, please select another country/region whose time zone is the same as yours.
• **Local Date and Time**	Set the access point's date and time manually.

5.2.3 Password Settings

Click "**System Configuration**" → "**Password Settings**" and the following page will be displayed.

Figure 5-36 Password Settings

Object	Description
• **Current Password**	Set the access point's administrator password. This is used to log in to the browser based on the configuration interface.
• **New Password**	Enter a new password.
• **Re-enter New Password**	Enter the new password again.

5.2.4 System Management

Click "**System Configuration**" → "**System Management**" and the following page will be displayed.

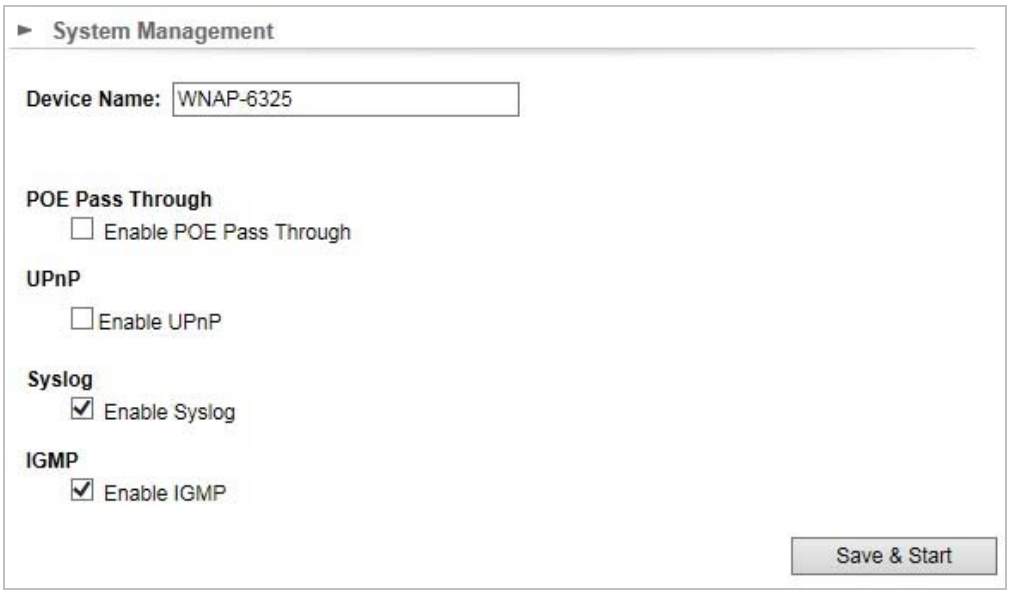


Figure 5-37 System Management

Object	Description
• **Device Name**	Enter a name for this access point. Default is **WNAP-6325**.
• **POE Passthrough**	Enable the POE Passthrough function. ※ When the option "**Enable POE Passthrough**" in the System Management page is checked, the LAN2 can supply passive PoE power to the second WNAP-7325 or WNAP-6325 through the LAN 2.
• **UPnP**	Check to enable the UPnP function. The UPnP feature allows the devices, such as Internet computers, to access the local host resources or devices as needed. UPnP devices can be automatically discovered by the UPnP service application on the LAN. **This option is only available in AP Router mode.**
• **Syslog**	Check to enable Syslog function.
• **IGMP**	Check to enable the IGMP Proxy function. **This option is only available in AP Router mode.**

5.2.5 Ping Watchdog

Click "**System Configuration**" → "**Ping Watchdog**" and the following page will be displayed.

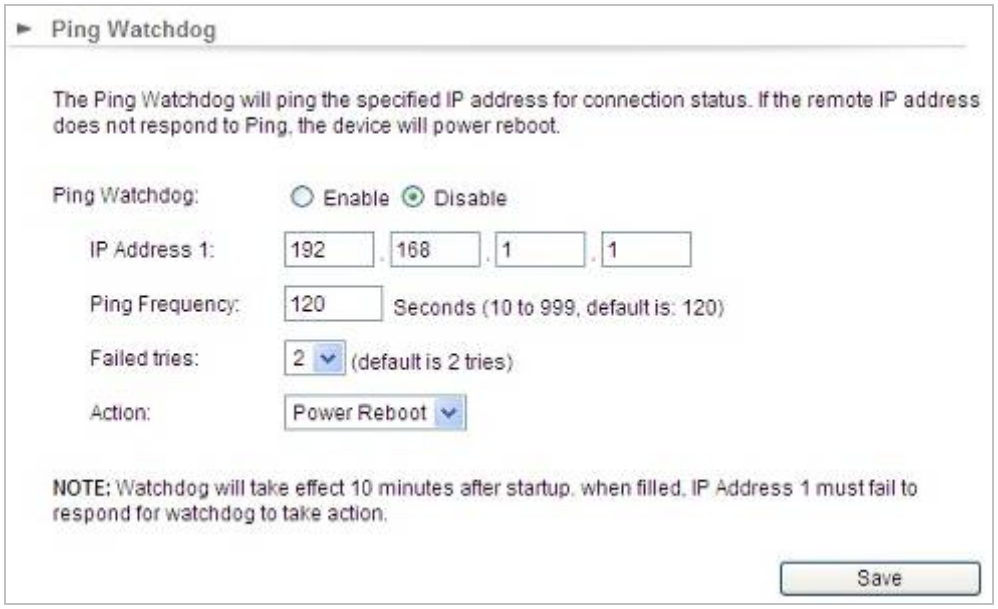


Figure 5-38 Ping Watchdog

Object	Description
• **Ping Watchdog**	**Enable** or **Disable** this function.
• **IP Address 1**	Enter the IP address which pings every time interval
• **Ping Frequency**	Set times from 10 to 999.
• **Failed tries**	Select failed tries from 1 to 5.

• **Action**	System will reboot when failing to ping the IP.

5.2.6 Firmware Upgrade

Click "**System Configuration**" → "**Firmware Upgrade**" and the following page will be displayed.

Figure 5-39 Firmware Upgrade

Object	Description
• **Browse**	Click **Browse** to select the firmware file, and click **Upgrade** to upgrade the firmware.

5.2.7 Configuration Save and Restore

Click "**System Configuration**" → "**Configuration Save and Restore**" and the following page will be displayed.

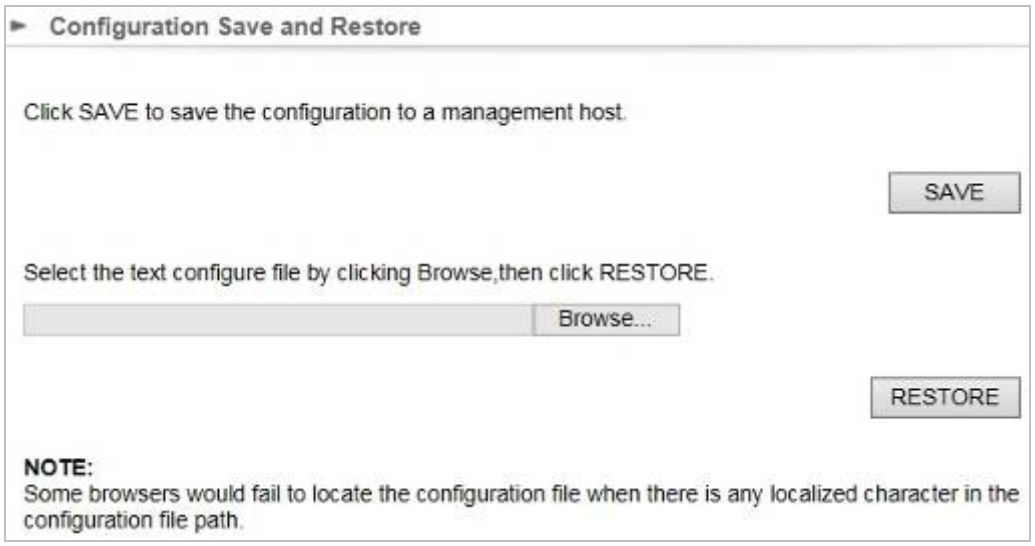


Figure 5-40 Configuration Save and Restore

Object	Description

• **SAVE**	Click **SAVE** to save the configuration to a management host.
• **Browse**	Click **Browse** to select the configuration file, and click **Restore** to restore the configuration file.

5.2.8 Factory Default

Click "**System Configuration**" → "**Factory Default**" and the following page will be displayed.

Press **YES** to restore to factory default.

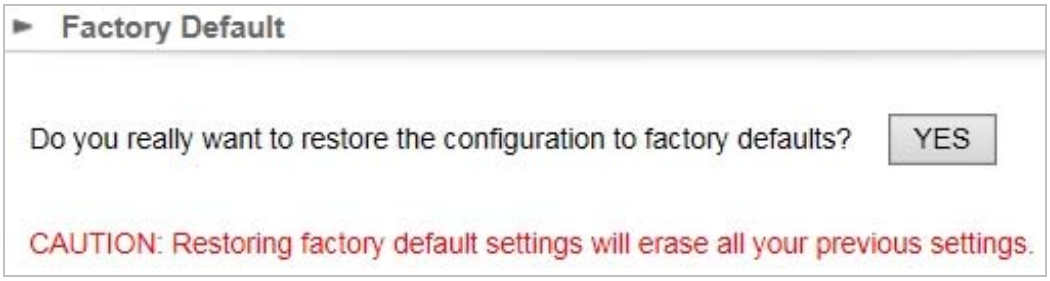


Figure 5-41 Factory Default

5.2.9 Reboot System

Click "**System Configuration**" → "**Reboot System**" and the following page will be displayed.

Press **YES** to reboot the system.

Figure 5-42 Reboot System

5.2.10 Schedule Reboot

Click "**System Configuration**" → "**Schedule Reboot**" and the following page will be displayed.

This page allows you to enable and configure system reboot schedule. The device can regularly reboot according to the reserved time when connecting to the Internet.

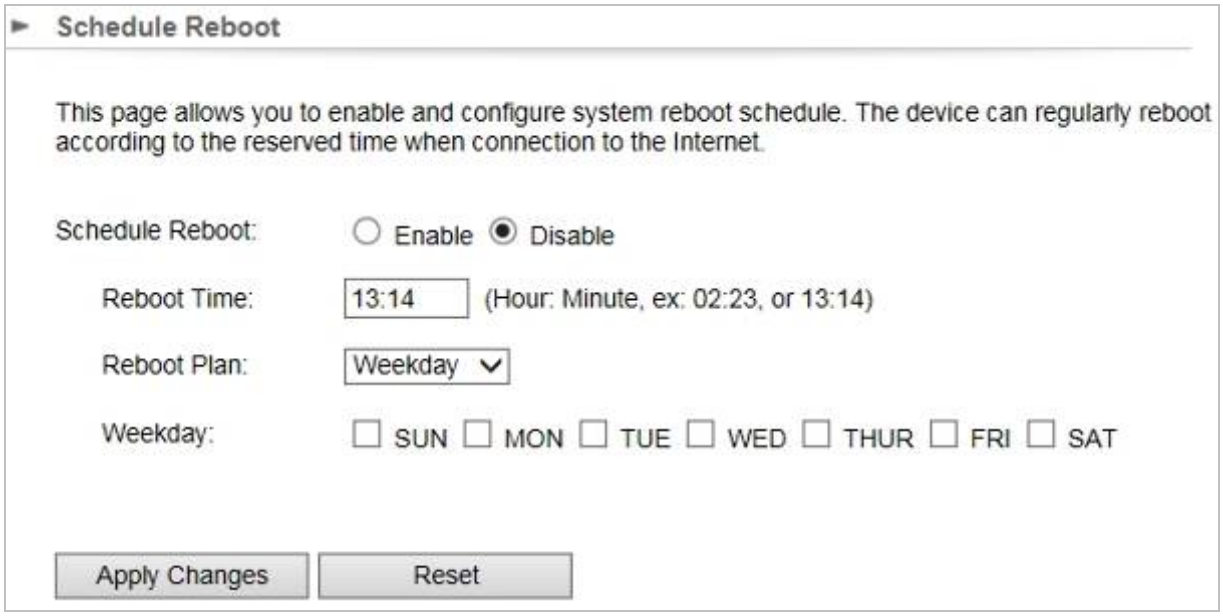


Figure 5-43 Schedule Reboot

Object	Description
• **Schedule Reboot**	**Enable** or **Disable** this function.
• **Reboot Time**	Enter the time that you want to reboot this device.
• **Reboot Plane**	Select **Weekday** to reboot in the day you choose or **Every day**.
• **Weekday**	Select the day that you want to reboot.

Note

1. This setting will only take effect when the Internet connection is accessible and the GMT time is configured correctly.
2. You must select at least one day when choosing "**Weekday**" as your reboot plan.
3. When choosing "**Every day**" as your reboot plan, the "**Weekday**" will be grayed out (disabled), which means **Every day** will auto reboot at the time that you schedule.

■ Example of how to configure **Schedule Reboot**. Please take the following Steps:

Before configuring schedule reboots, please ensure the Internet connection is accessible and the GMT time is configured correctly according to **NTP Settings** page.

Step 1. Enable the "Schedule Reboot".

Step 2. Enter the Reboot Time (24-hour format) to enable this function to take effect. For example, if you want this function to work at 23:00 every Sunday, choose "Weekday" in the Reboot Plan field.

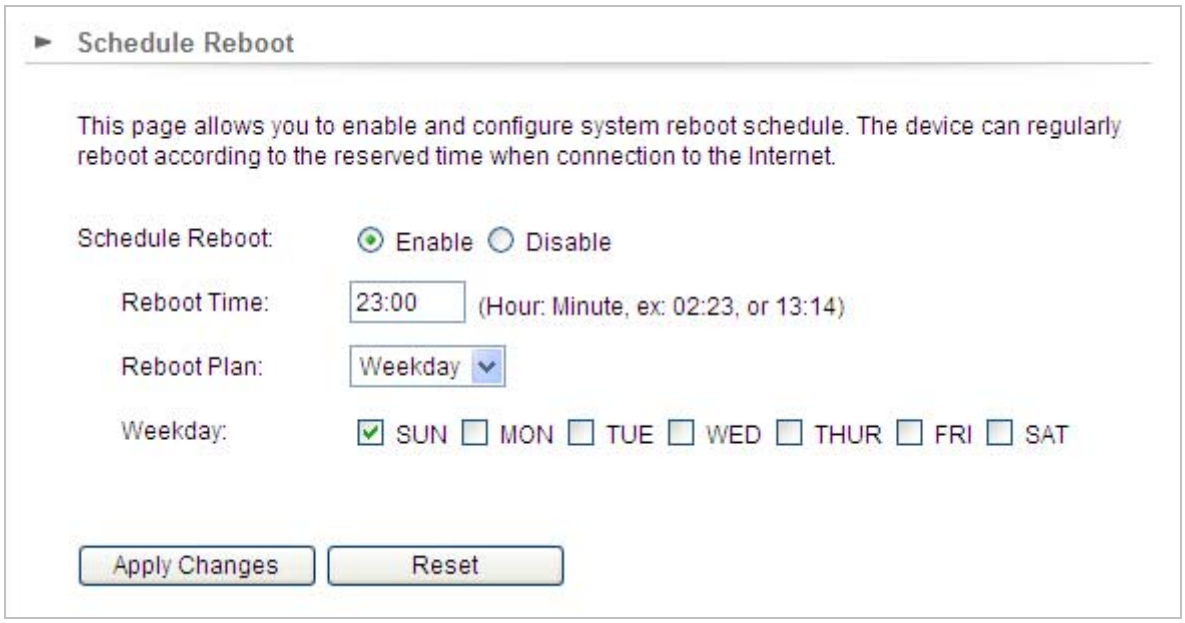


Figure 5-44 Schedule Reboot - Example

Step 3. Click the "Apply Changes" button to take this function effect.

5.3 Tools

5.3.1 Network Ping

Click "**Tools**" → "**Network Ping**" and the following page will be displayed.

Ping is a network tool used to test whether a particular host is reachable across an IP network. Enter the IP, Ping Count, and click "**Ping**" to diagnostic your internet connection.

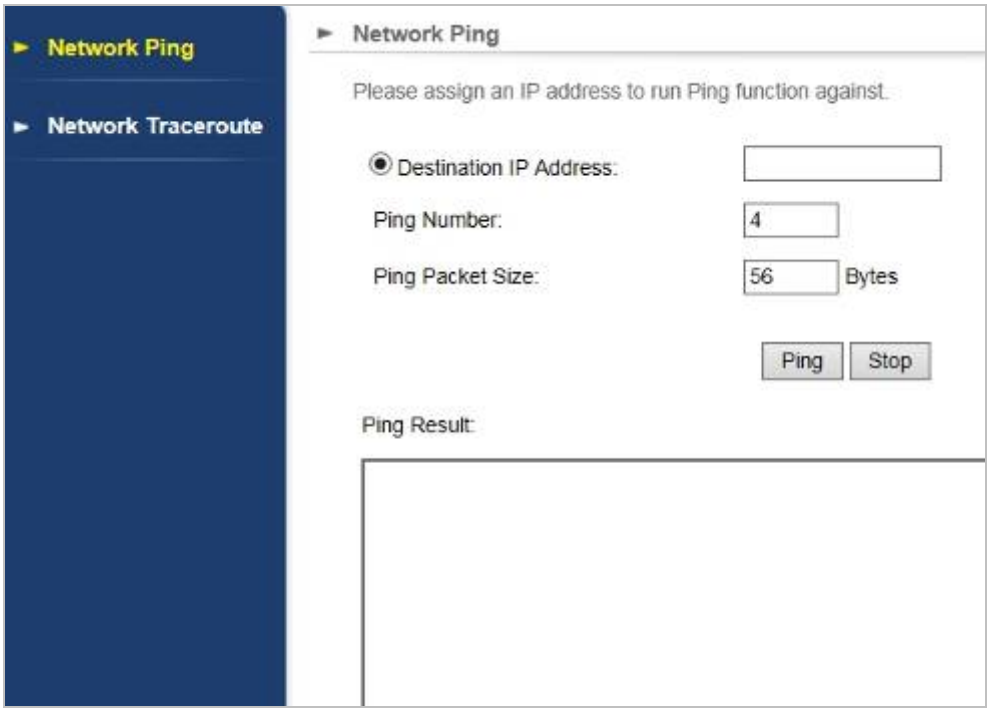


Figure 5-45 Network Ping

5.3.2 Network Traceroute

Click "**Tools**" → "**Network Traceroute**" and the following page will be displayed.

Traceroute is a computer network diagnostic tool for displaying the route (path) and measuring transit delays of packets across an Internet Protocol (IP) network. It can help identify connection problems. Enter the IP and click "**Traceroute**" to diagnostic your internet connection.

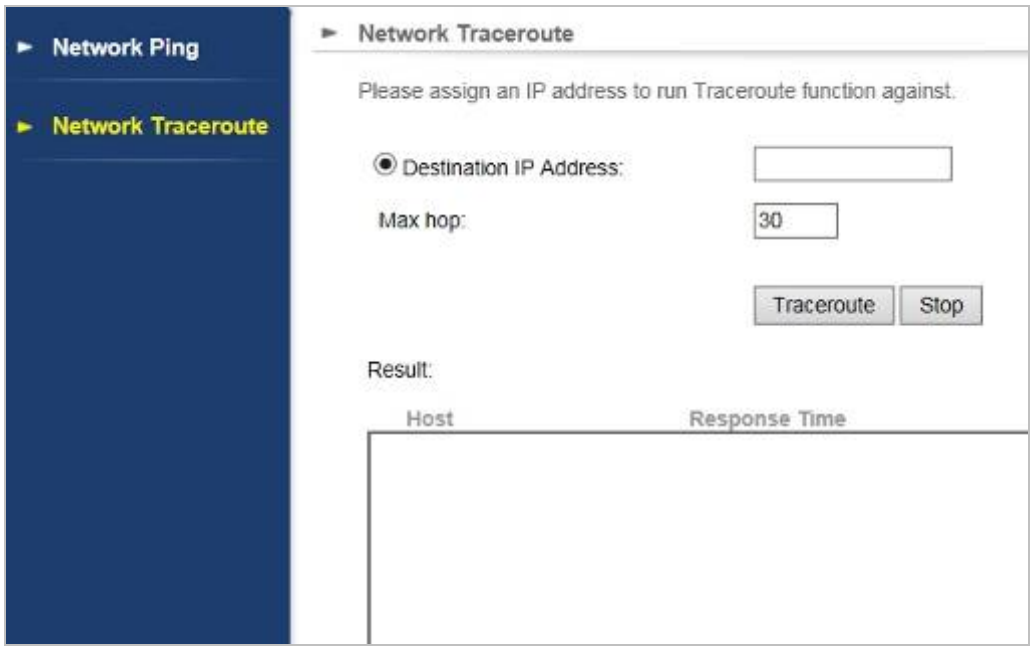


Figure 5-46 Network Traceroute

5.4 Device Status

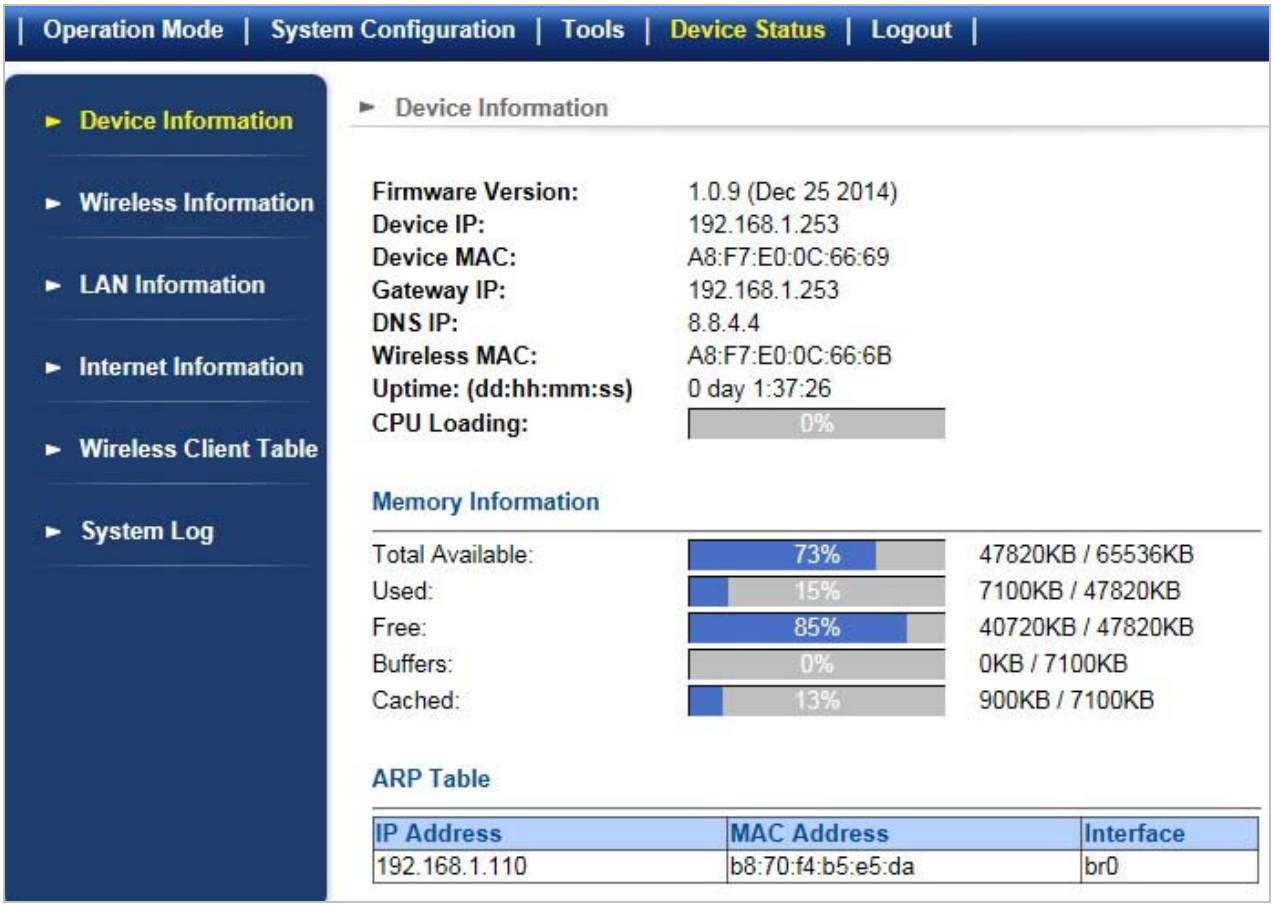


Figure 5-47 Device Status

5.4.1 Device Information

Click "**Device Status**" → "**Device Information**" and the following page will be displayed.

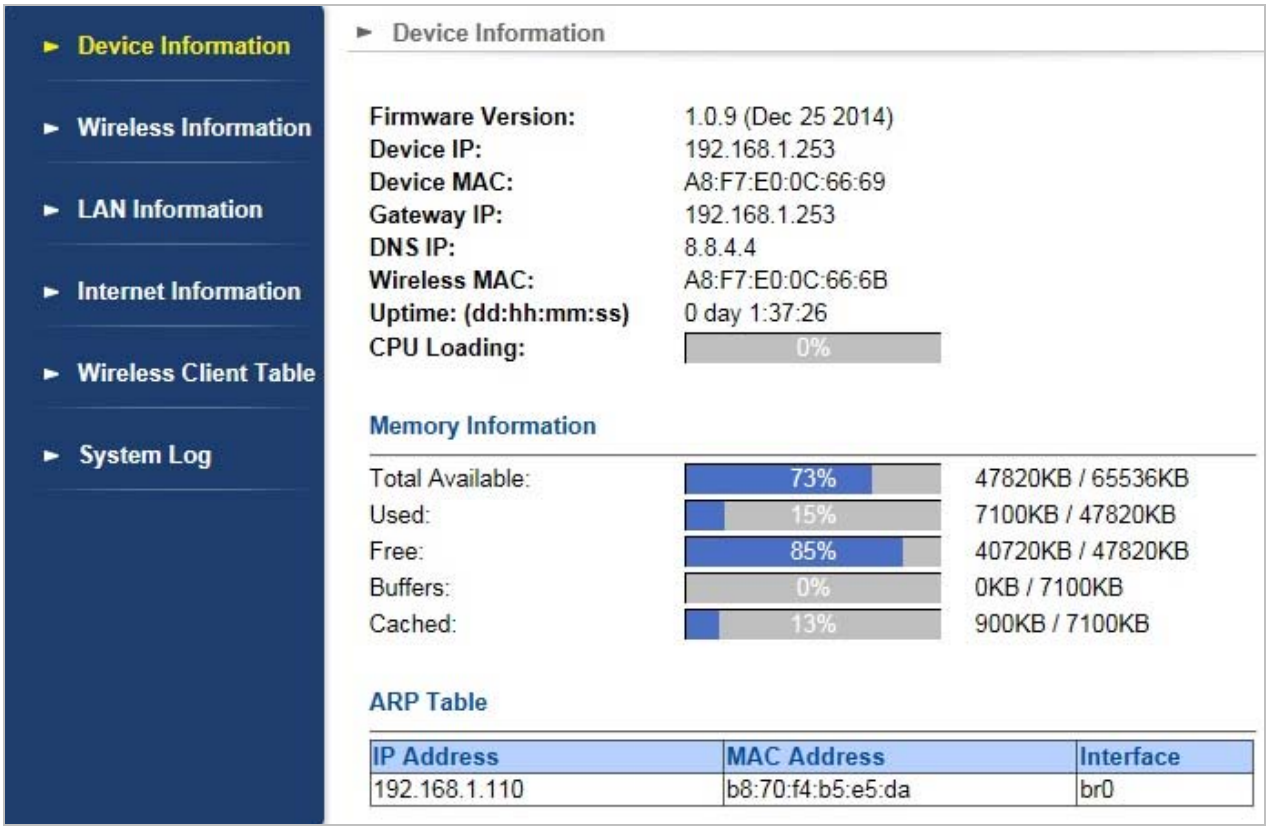


Figure 5-48 Device Information

The page includes the following fields:

Object	Description
• **Firmware Version**	Displays current F/W version.
• **Device IP**	Displays IP of AP.
• **Device MAC**	Displays AP's LAN MAC address.
• **Gateway IP**	Displays Gateway IP of AP.
• **DNS IP**	Displays DNS IP of AP.
• **Wireless MAC**	Displays AP's Wireless MAC address.
• **Uptime**	Display the uptime of AP.
• **CPU Loading**	Display the CPU loading of AP.

5.4.2 Wireless Information

Click "**Device Status**" → "**Wireless Information**" and the following page will be displayed.

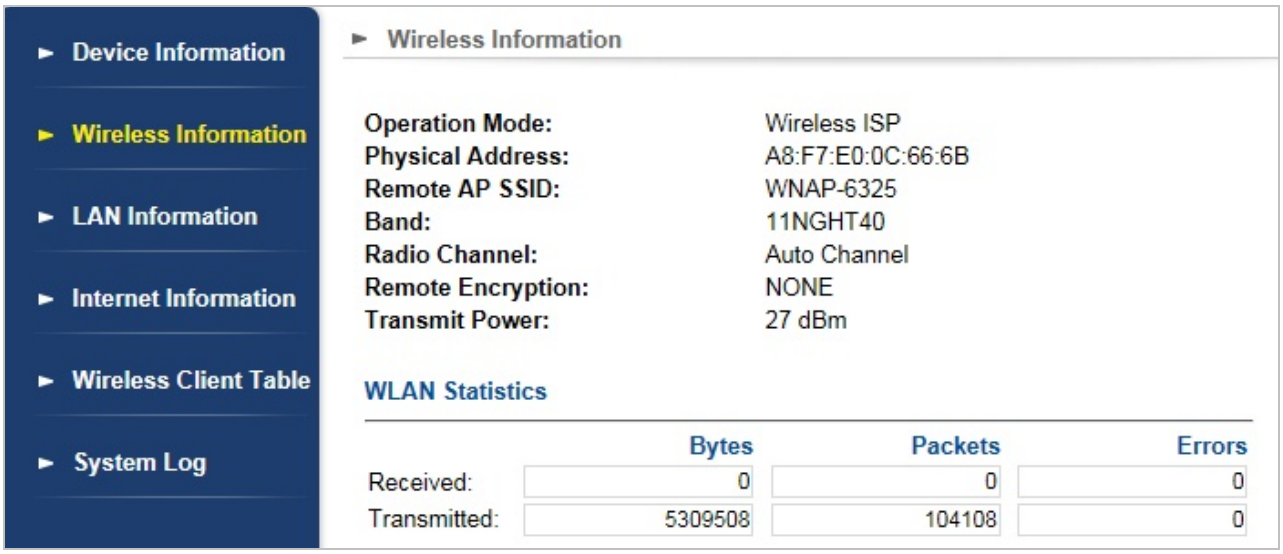


Figure 5-49 Wireless Information

The page includes the following fields:

Object	Description
• **Operation Mode**	Displays current Operation Mode.
• **Physical address**	Displays AP's Wireless MAC address.
• **SSID**	It is the wireless network name. The default SSID is **WNAP-6325**.
• **Band**	Display operating channel width which is **11NG HT20** or **11NG HT40**.
• **Radio Channel**	Display the channel you would like to use. The channel range will be changed by selecting different domain.
• **Wireless Encryption**	Display the encryption type that you would like to use.
• **Transmit Power**	Display the TX power that you would like to use.

5.4.3 LAN Information

Click "**Device Status**" → "**LAN Information**" and the following page will be displayed.

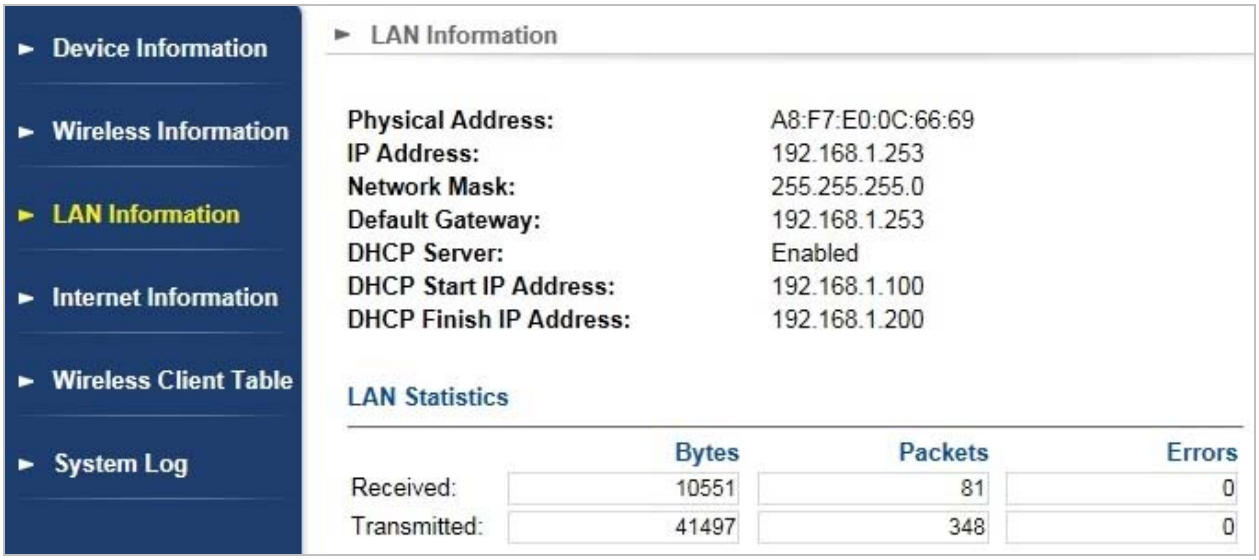


Figure 5-50 LAN Information

The page includes the following fields:

Object	Description
• **Physical Address**	Displays AP's LAN MAC address.
• **IP Address**	Displays IP of AP.
• **Network Mask**	Displays Network Mask of AP.
• **Default Gateway**	Displays Gateway IP of AP.
• **DHCP Server**	**Enable** or **Disable** DHCP server.
• **DHCP Start IP Address**	Enter the starting IP address for the DHCP server's IP assignment.
• **DHCP Finish IP Address**	Enter the ending IP address for the DHCP server's IP assignment.

5.4.4 Wireless Client Table

Click "**Device Status**" → "**Wireless Client Table**" and the following page will be displayed.

Figure 5-51 Wireless Client Table

The page includes the following fields:

Object	Description
• **No.**	Displays the number of connecting device.
• **Mac Address**	Displays Mac address of AP.
• **Connection Speed**	Displays connection speed of device.
• **Signal Strength**	Display signal strength of device. The signal strength between "**-30 and 70**" can setup a reliable connection.

5.4.5 System Log

Choose menu "**Device Status** → "**System Log**" to view the logs of the Wireless AP.

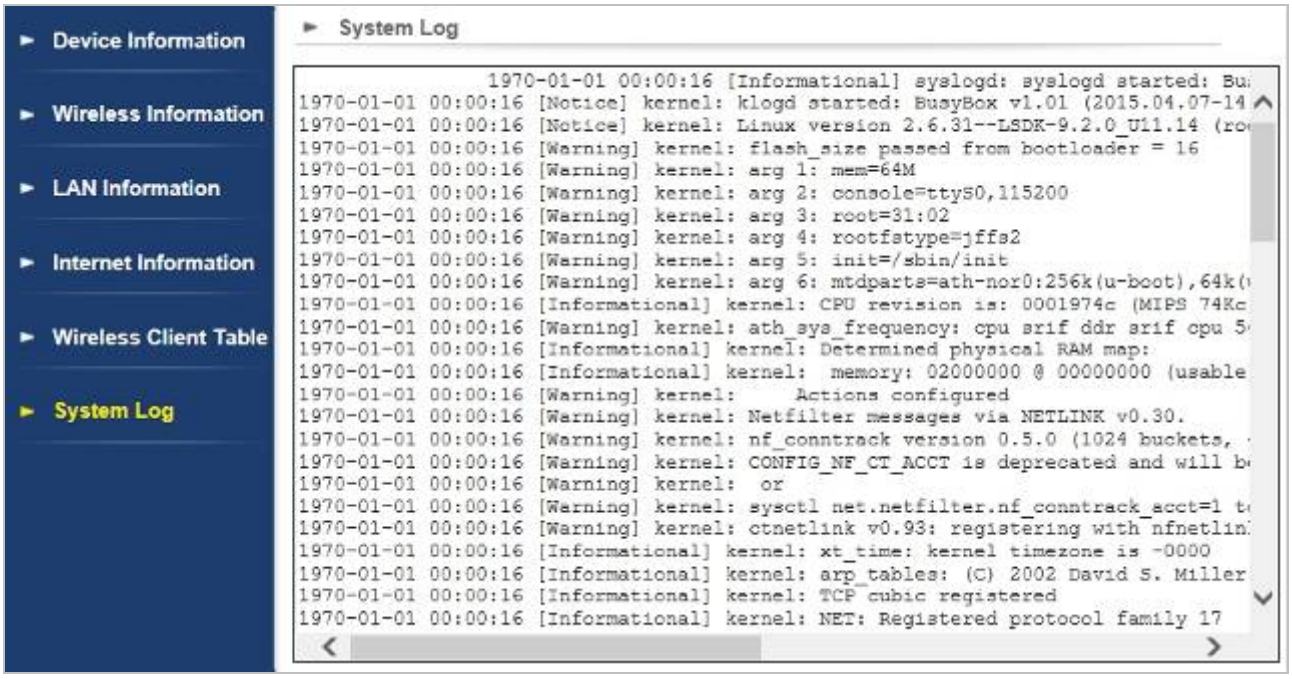


Figure 5-52 System Log

5.5 Logout

Select “**Logout**” to logout the system.

Figure 5-53 Logout

Figure 5-54 Re-login

Appendix A: Troubleshooting

If you found the AP is working improperly or stop responding to you, please read this troubleshooting first before contacting the Planet Tech Support for help. Some problems can be solved by yourself within very short time.

Scenario	Solution
The AP is not responding to me when I want to access it by web browser.	a. Please check the connection of the power cord and the Ethernet cable of this AP. All cords and cables should be correctly and firmly inserted to the AP. b. If all LEDs on this AP are off, please check the status of power adapter, and make sure it is correctly powered. c. You must use the same IP address section that AP uses. d. Are you using MAC or IP address filter? Try to connect the AP by another computer and see if it works; if not, please reset the AP to the factory default settings (Press the 'reset' button for over 10 seconds). e. Set your computer to static IP address, and see if the Planet Smart Discovery can find the AP or not. f. If you did a firmware upgrade and this happens, contact the Planet Tech Support for help. g. If all the solutions above don't work, contact the Planet Tech Support for help.
I can't get connected to the Internet.	a. Check the Internet connection status from the router that is connected with the AP. b. Please be patient. Sometimes Internet is just that slow. c. If you have connected a computer to Internet directly before, try to do that again, and check if you can get connected to Internet with your computer directly attached to the device provided by your Internet service provider. d. Check PPPoE / L2TP / PPTP user ID and password in your router again. e. Call your Internet service provider and check if there's something wrong with their service. f. If you just can't connect to one or more website, but you can still use other internet services, please check URL/Keyword filter. g. Try to reset the AP and try again later. h. Reset the device provided by your Internet service provider. i. Try to use IP address instead of hostname. If you can use IP address to communicate with a remote server, but can't use hostname, please check DNS setting.
I can't locate my AP by my wireless	a. 'Broadcast ESSID' set to off?

device.	b. The antenna is properly secured. c. Are you too far from your AP? Try to get closer. d. Please remember that you have to input ESSID on your wireless client manually, if ESSID broadcast is disabled.
File downloading is very slow or breaks frequently.	a. Are you using QoS function? Try to disable it and try again. b. Internet is slow sometimes; try to be patient. c. Try to reset the AP and see if it's better after that. d. Try to know what computers do on your local network. If someone's transferring big files, other people will think Internet is really slow. e. If this never happens before, call you Internet service provider to know if there is something wrong with their network.
I can't log into the web management interface; The password is wrong.	a. Make sure you're connecting to the correct IP address of the AP. b. Password is case-sensitive. Make sure the 'Caps Lock' light is not illuminated. c. If you really forget the password, do a hard reset.
The AP becomes hot	a. This is not a malfunction, if you can keep your hand on the AP's case. b. If you smell something wrong or see the smoke coming out from AP or A/C power adapter, please disconnect the AP and A/C power adapter from utility power (make sure it's safe before you're doing this!), and call your dealer for help.

Appendix B: Use Planet Smart Discovery to find AP

To easily discover the WNAP-6325 in your Ethernet environment, the Planet Smart Discovery Utility from user's manual CD-ROM is an ideal solution.

The following install instructions will guide you to running the Planet Smart Discovery Utility.

Step 1: Deposit the **Planet Smart Discovery Utility** in administrator PC.

Step 2: Execute this utility.

Step 3: Click the **"Refresh"** button as shown below to update the list of the currently connected devices.

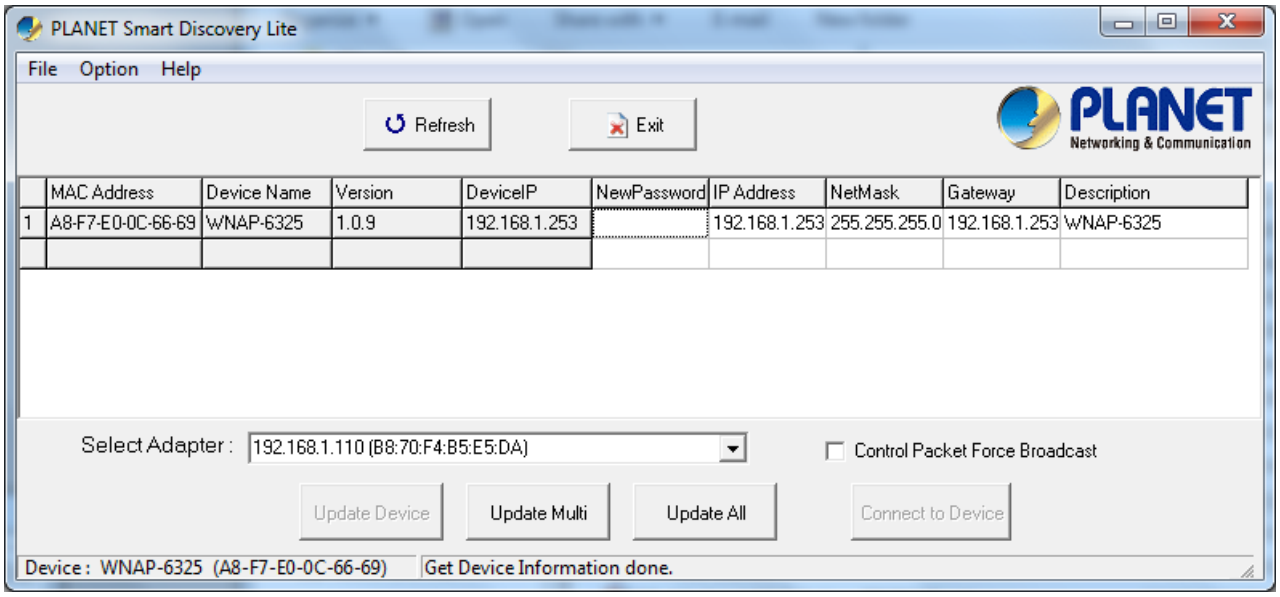


Figure C-1

Step 3: Select the WNAP-6325 from the list and then click the **"Connect to Device"** button to login to the Web Management Configuration Page.

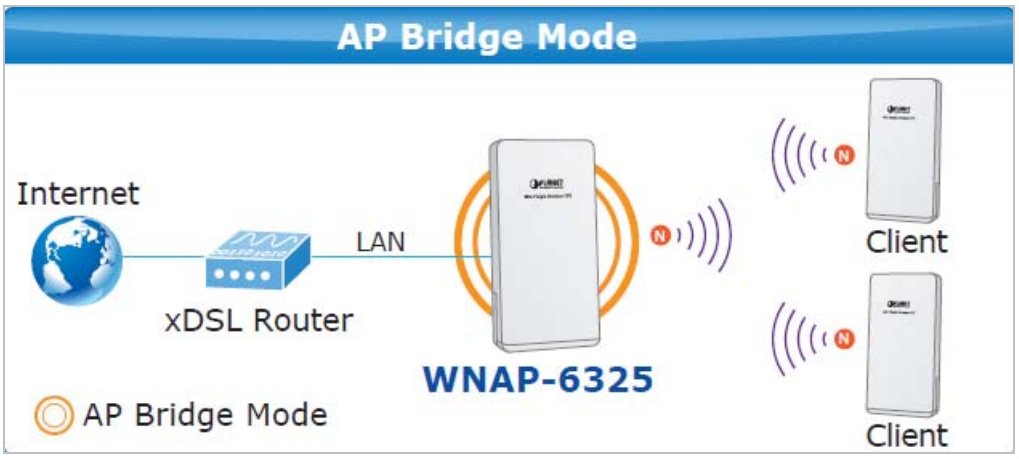
Note

The fields in white background can be modified directly, and then you can apply the new setting by clicking the "**Update Device**" button.

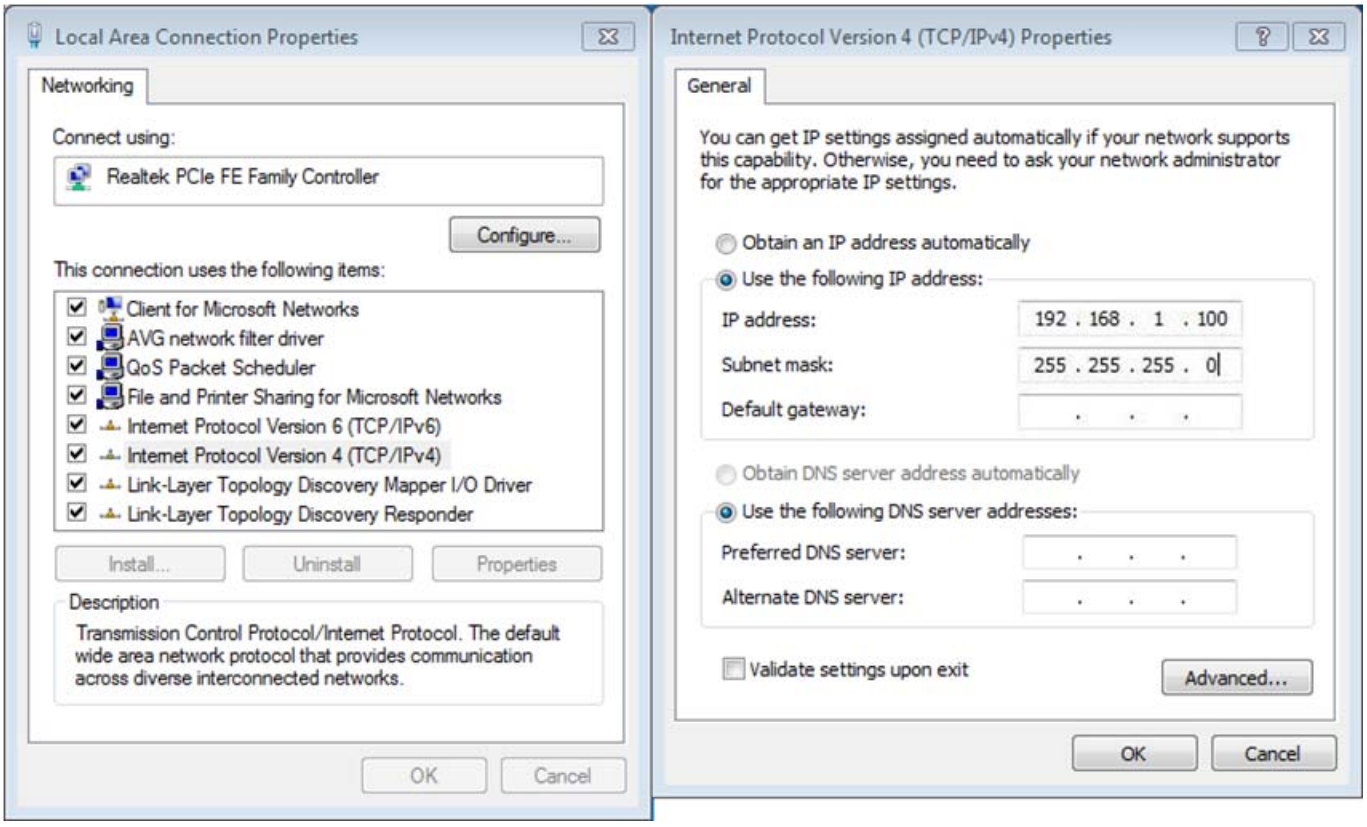
Appendix C: FAQ

Q1: How to set up the AP Client Connection

Topology:

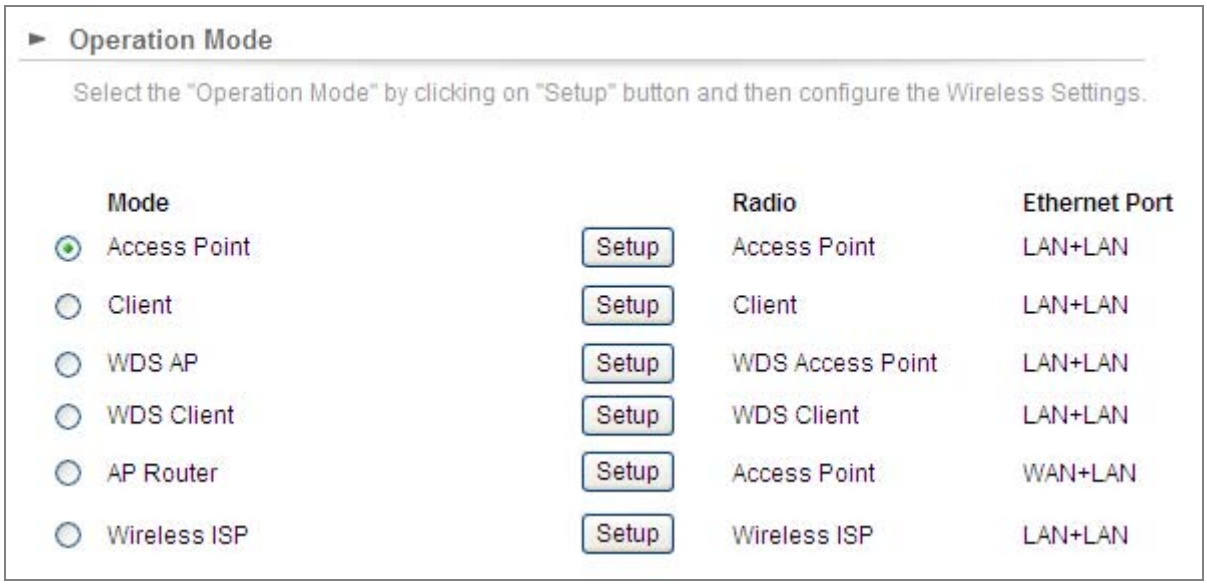


Step 1. Use static IP in the PCs that are connected with AP-1 (Site-1) and AP-2 (Site-2). In this case, Site-1 is "**192.168.1.100**", and Site-2 is "**192.168.1.200**".



Step 2. In AP-1, go to "**Operation Mode**" to configure it to **Access Point** Mode.

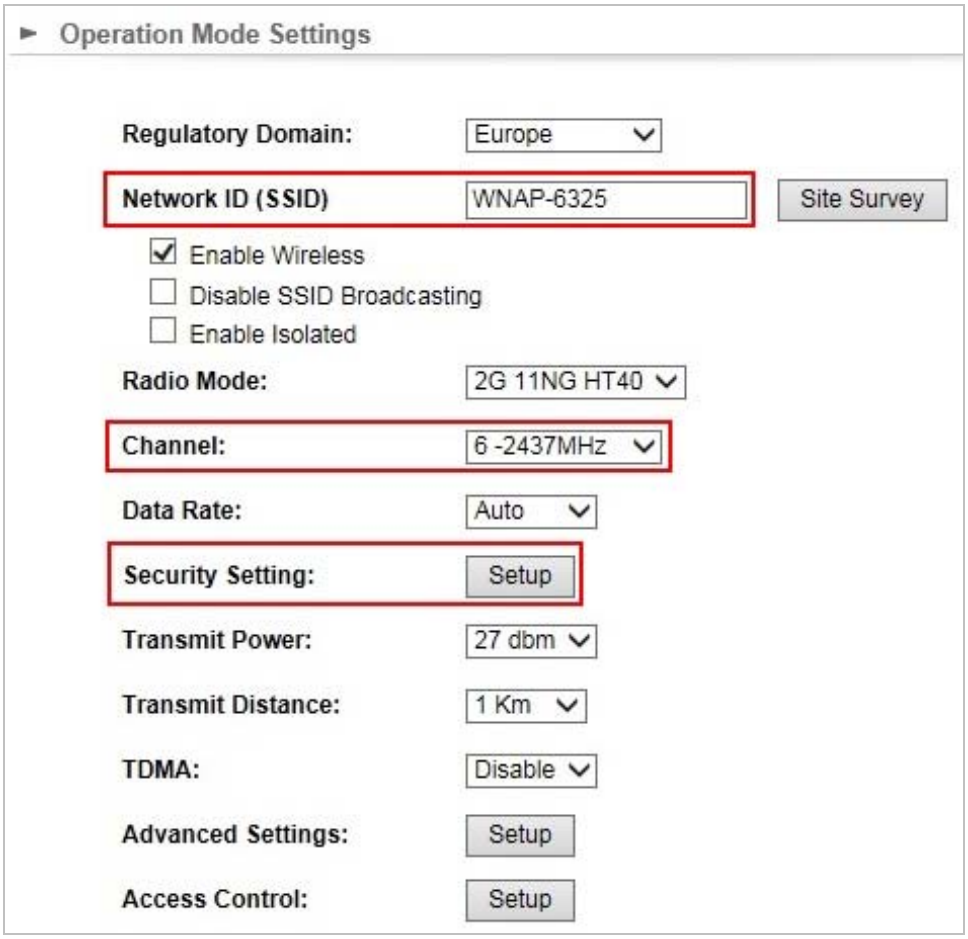
※ **You can also configure it in "AP Router" mode if you want to connect the WAN port of the AP to the internet directly.**

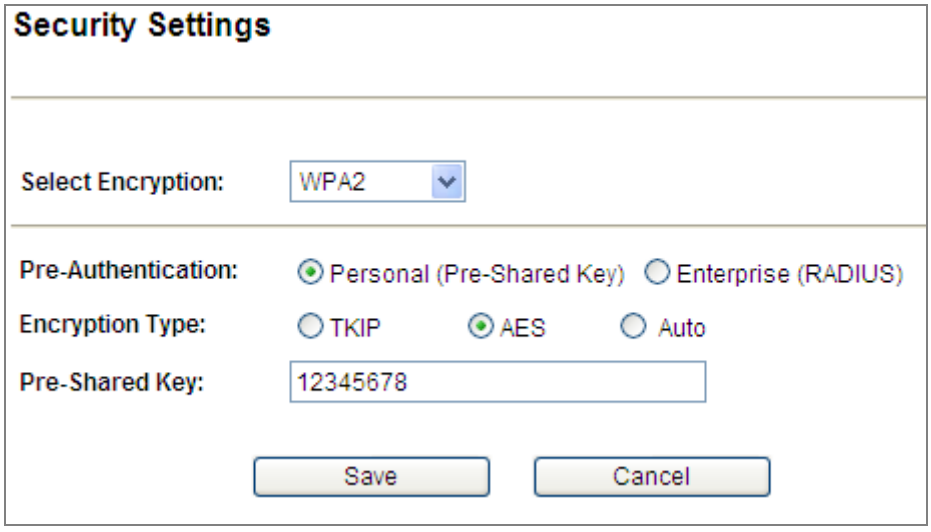


Step 3. Click "**Setup**" to configure the following parameters and then click **Save & Restart** to save the settings.

1) **Network ID (SSID)**: set to a unique value
2) **Channel**: set to a fixed one
3) **Security Setting**: strongly suggested to configure it.

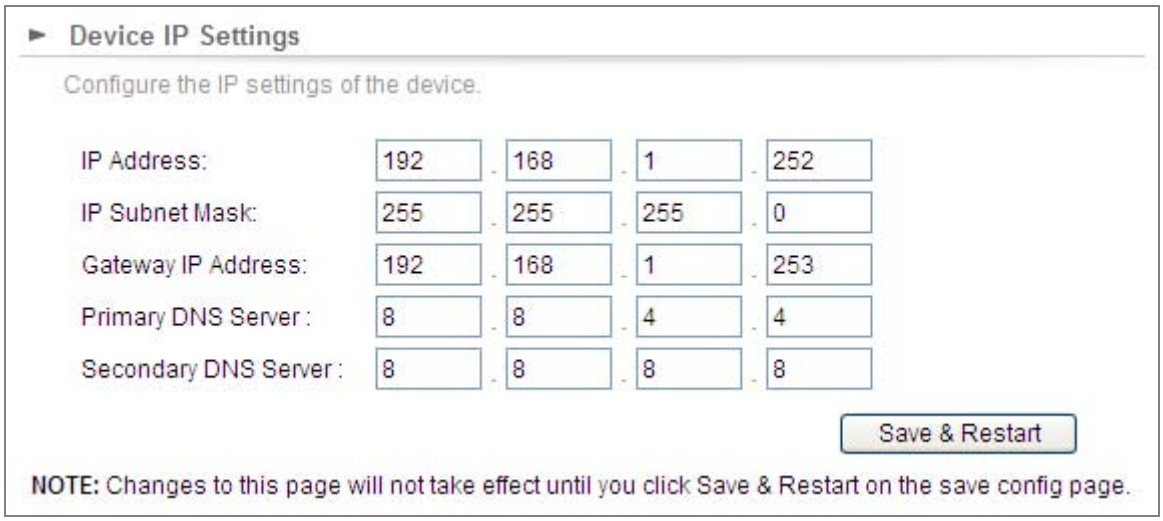
   In this case, we configure it to WPA2-PSK, AES


Operation Mode Settings
Regulatory Domain:
Europe
Network ID (SSID)
WNAP-6325
Site Survey
Enable Wireless
Disable SSID Broadcasting
Enable Isolated
Radio Mode:
2G 11NG HT40
Channel:
6 -2437MHz
Data Rate:
Auto
Security Setting:
Setup
Transmit Power:
27 dbm
Transmit Distance:
1 Km
TDMA:
Disable
Advanced Settings:
Setup
Access Control:
Setup


Security Settings
Select Encryption:
WPA2
Pre-Authentication:
Personal (Pre-Shared Key)
Enterprise (RADIUS)
Encryption Type:
TKIP
AES
Auto
Pre-Shared Key:
12345678
Save
Cancel

Step 4. In AP-2, modify the default IP to the same IP range but different from AP-1.

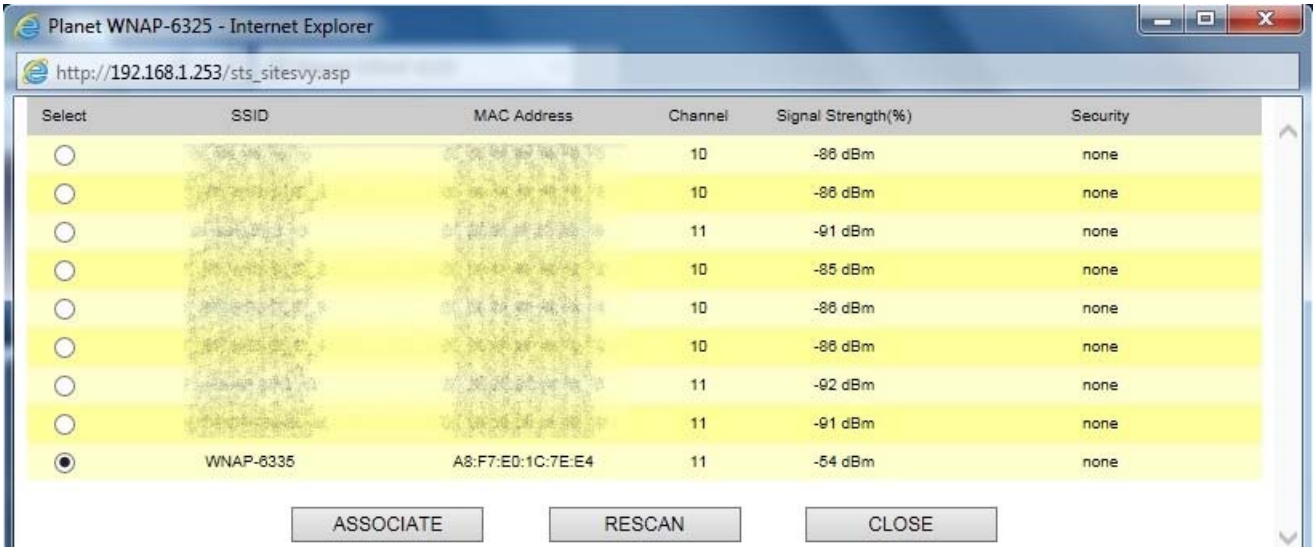
In this case, the IP is changed to **192.168.1.252**.



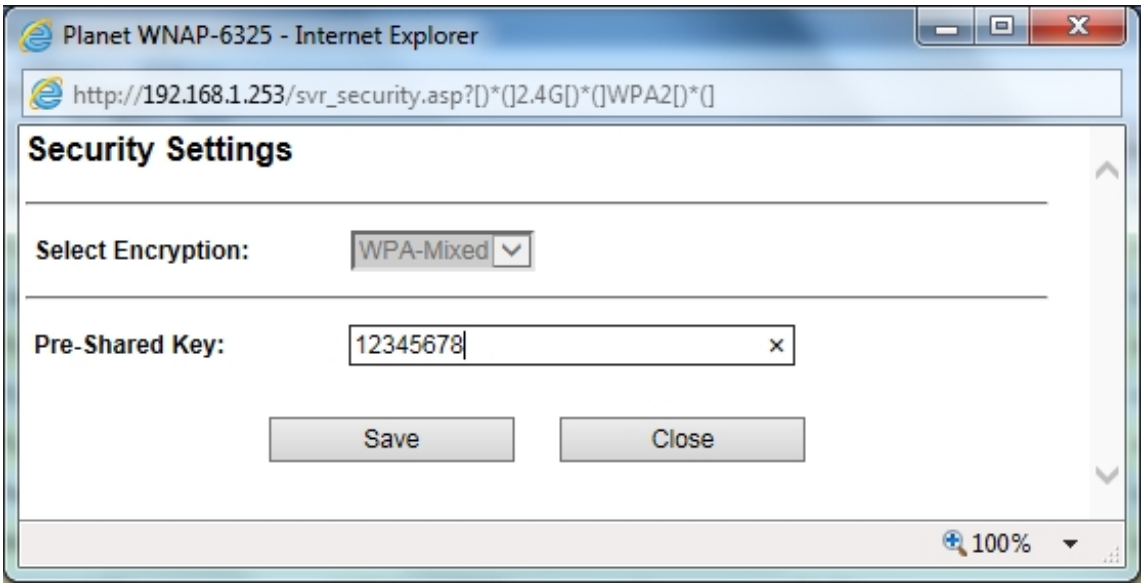
Step 5. In AP-2, configure it in "**Client**" mode and click "**Setup**".

Step 6. Click "**Setup**" and then click **Site Survey** to find AP-1.

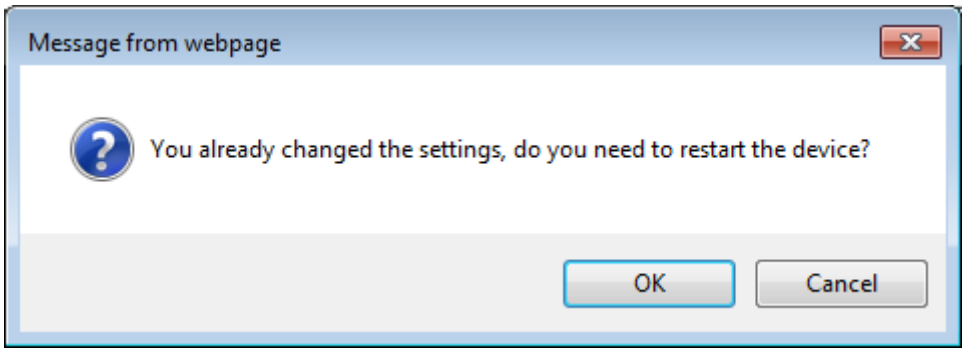
Step 7. Select AP-1 from the list.



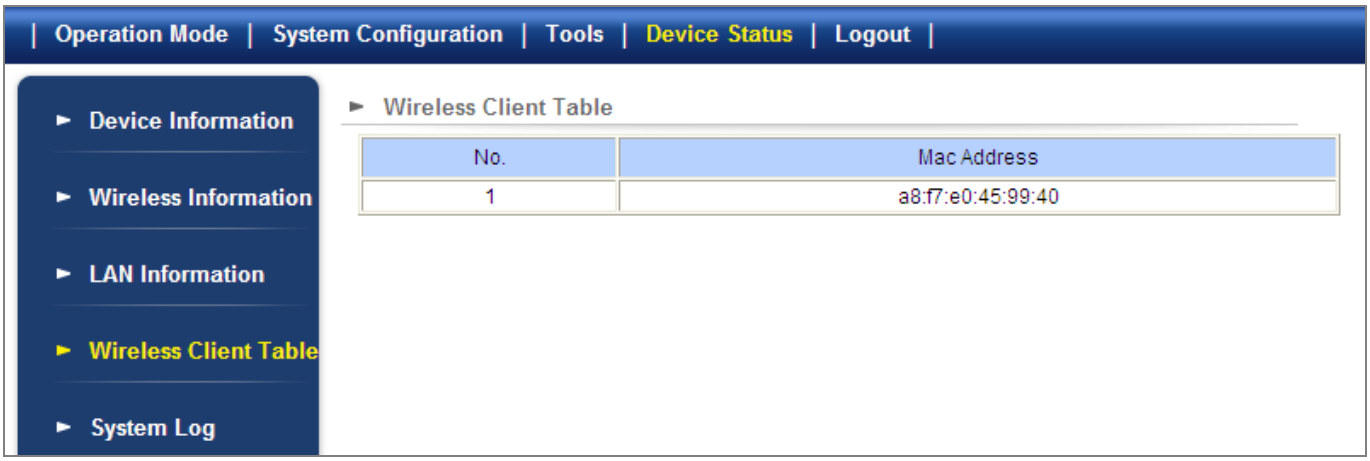
Step 8. Click "**SET SECURITY**" to configure the Pre-Shared Key and then click "**Save**" to close the window.



Step 9. Click "**OK**" and "**Save & Restart**" to apply the setting.

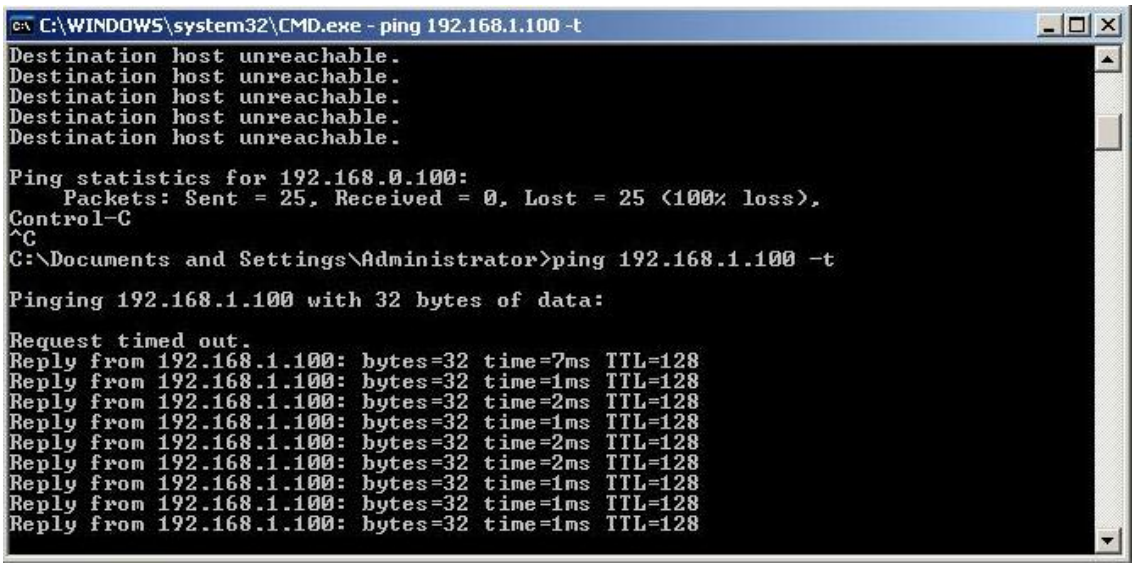


Step 10. In AP-1, go to "**Device Status-> Wireless Client Table**" to check whether AP-2 should be in the list.

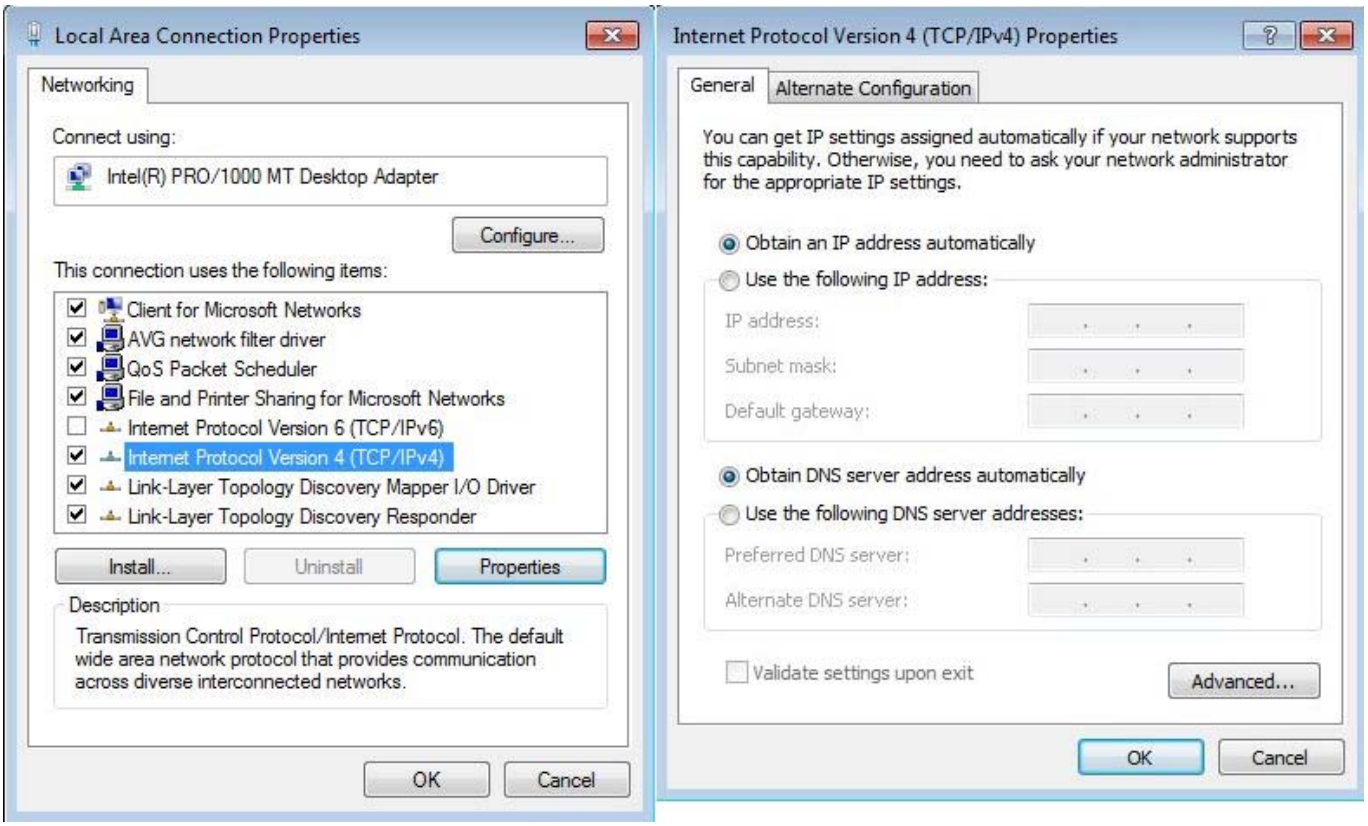


Step 11. Use command line tool to ping each other to ensure the link is successfully established.

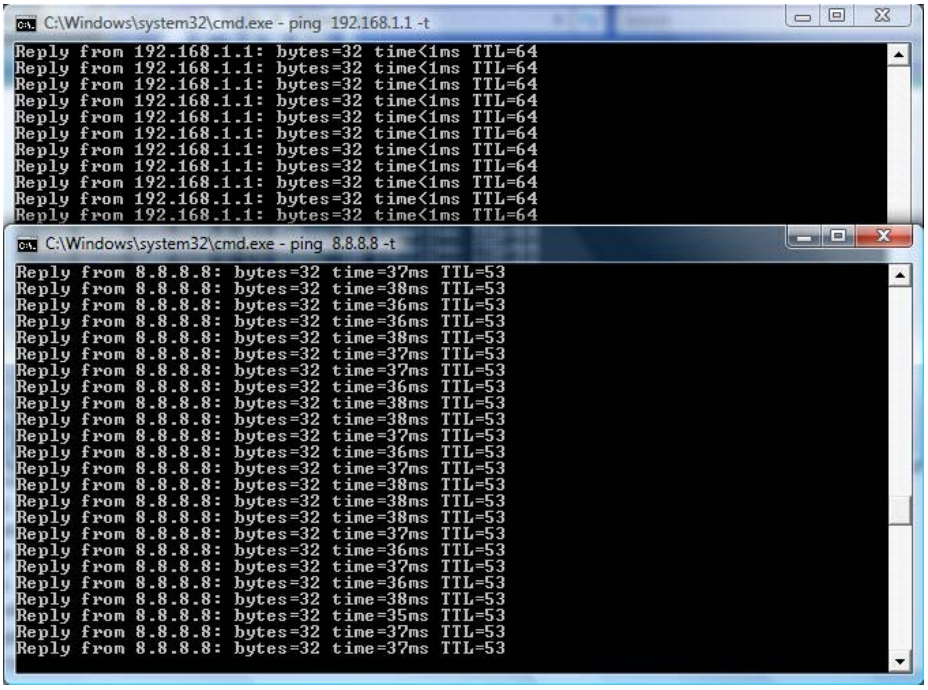
From Site-1, ping 192.168.1.200; and in Site-2, ping 192.168.1.100.



Step 12. Configure the TCP/IP settings of Site-2 to "**Obtain an IP address automatically**".



Step 13. Use command line tool to ping the DNS (e.g. Google) to ensure Site-2 can access internet through the wireless connection.



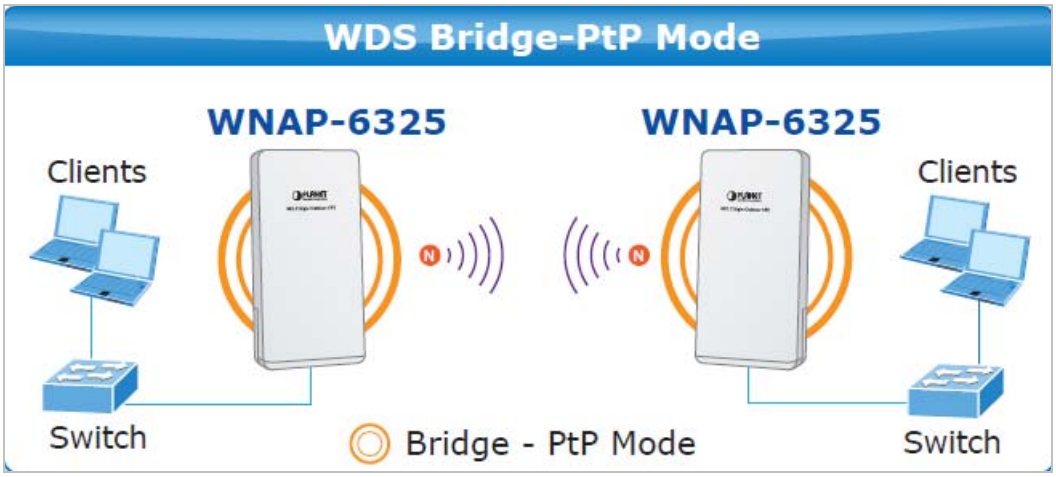
Note

The attention of the following hints should be paid:

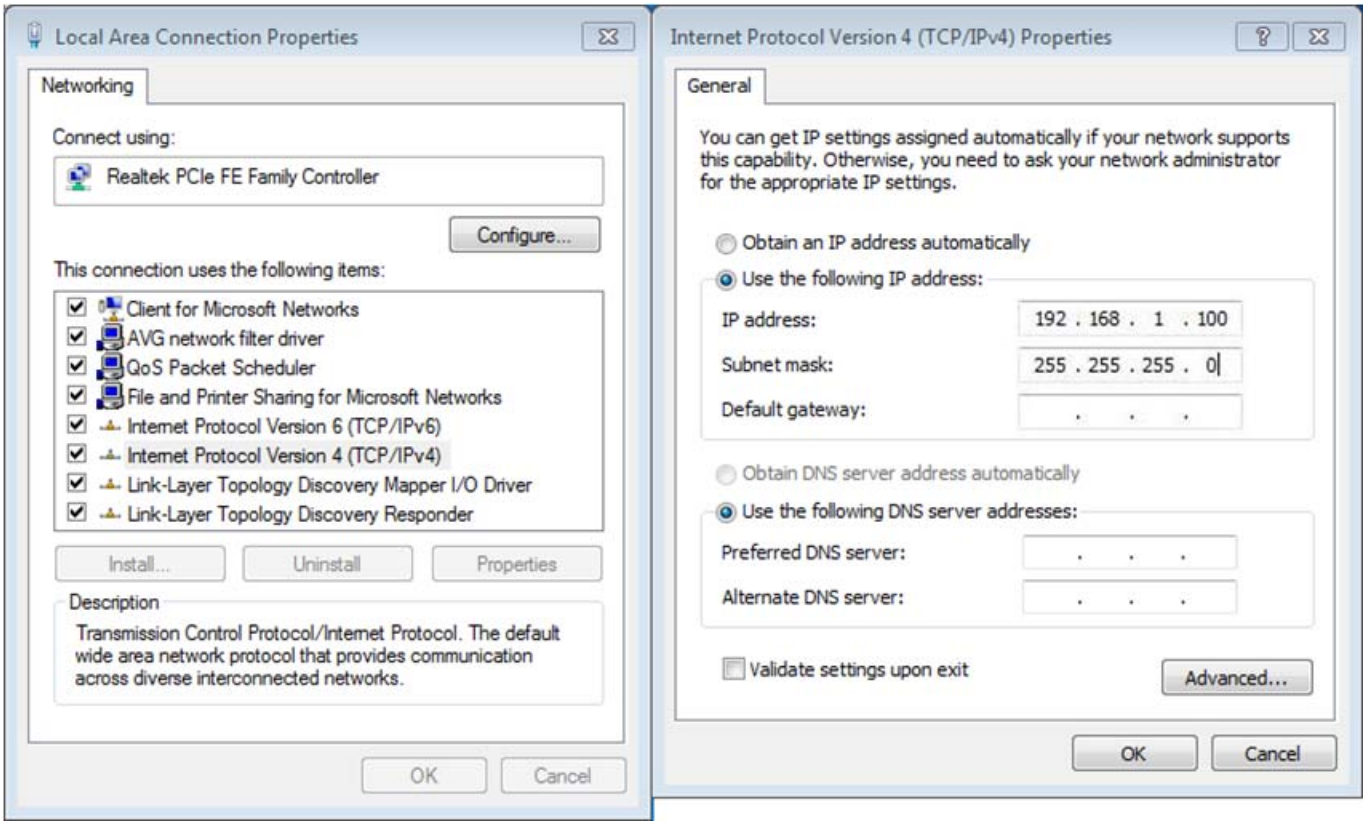
1) The encryption method must be the same as that of both sites if configured.
2) Both sites should be Line-of-Sight.
3) For the short distance connection less than 1km, please reduce the "Transmit power" of both sites.
4) For the long distance connection over 1km, please adjust the "Transmit Distance" to the actual distance or double of the actual distance.

Q2: How to set up the WDS Connection

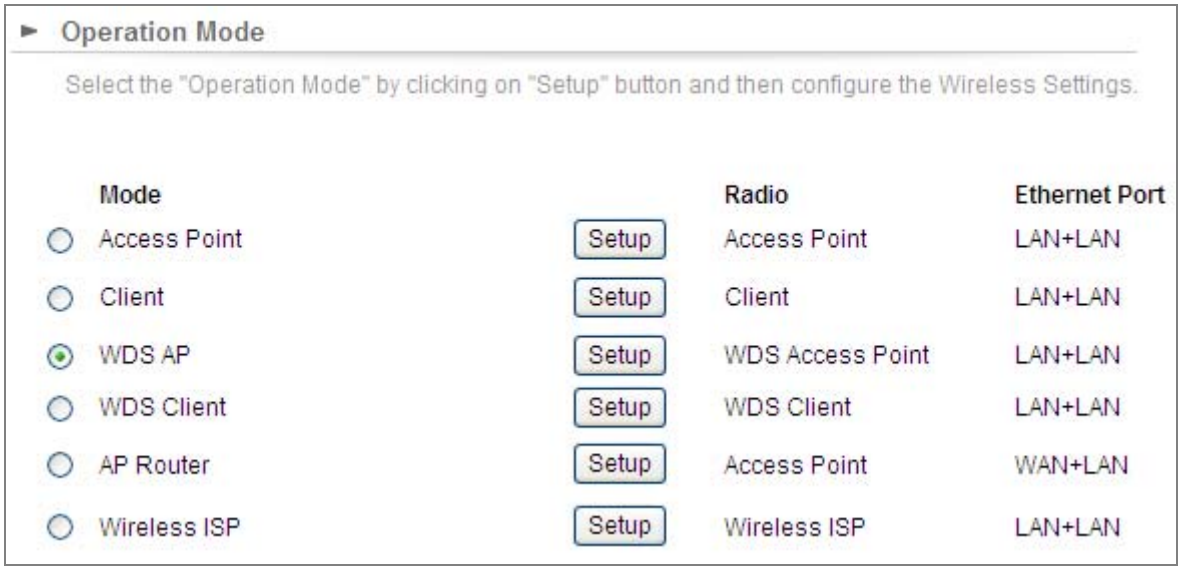
Topology:



Step 1. Use static IP in the PCs that are connected with WNAP-6325-1 (Site-1) and WNAP-6325-2 (Site-2). In this case, Site-1 is "**192.168.1.100**", and Site-2 is "**192.168.1.200**".



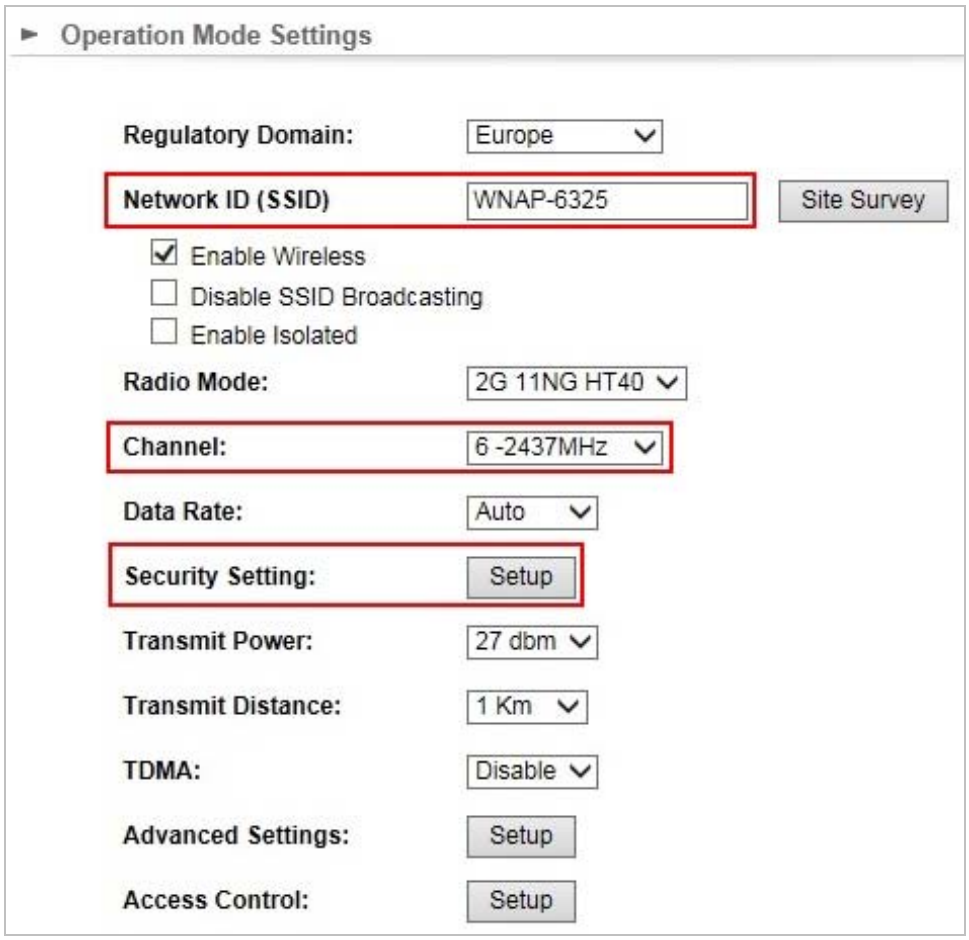
Step 2. In AP-1, go to "**Operation Mode**" to configure it **Access Point** Mode.

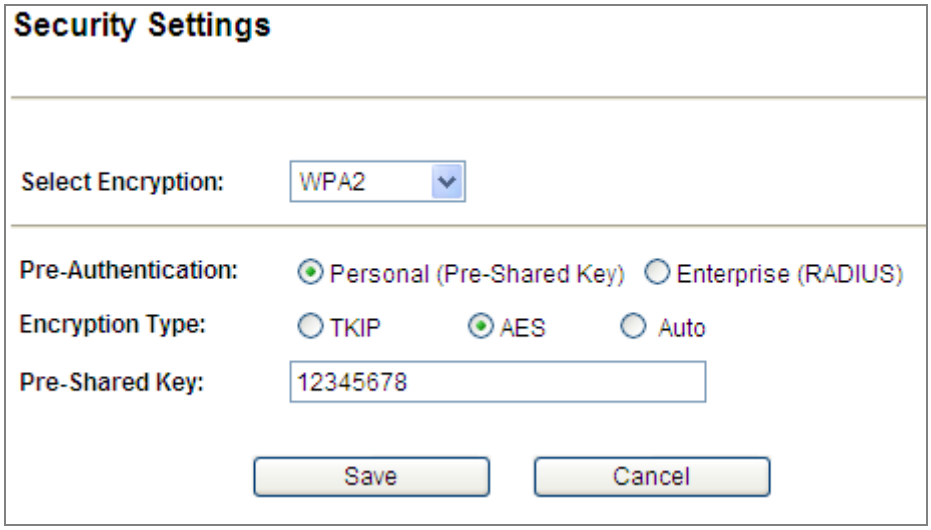


Step 3. Click "**Setup**" to configure the following parameters and then click **Save & Restart** to save the settings.

4) **Network ID (SSID)**: set to a unique value
5) **Channel**: set to a fixed one
6) **Security Setting**: strongly suggested to configure it.

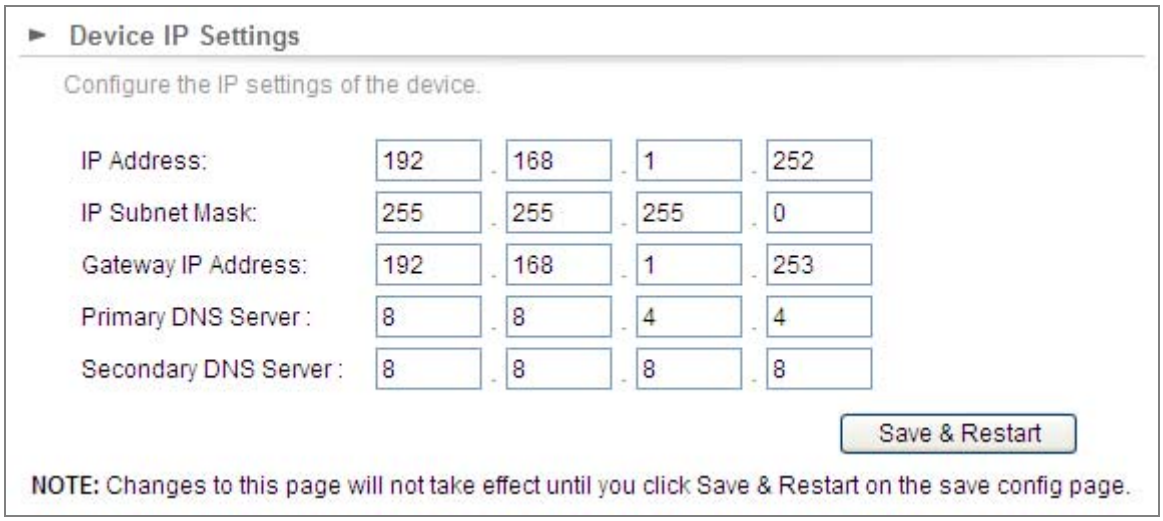
   In this case, we configure it to WPA2-PSK, AES



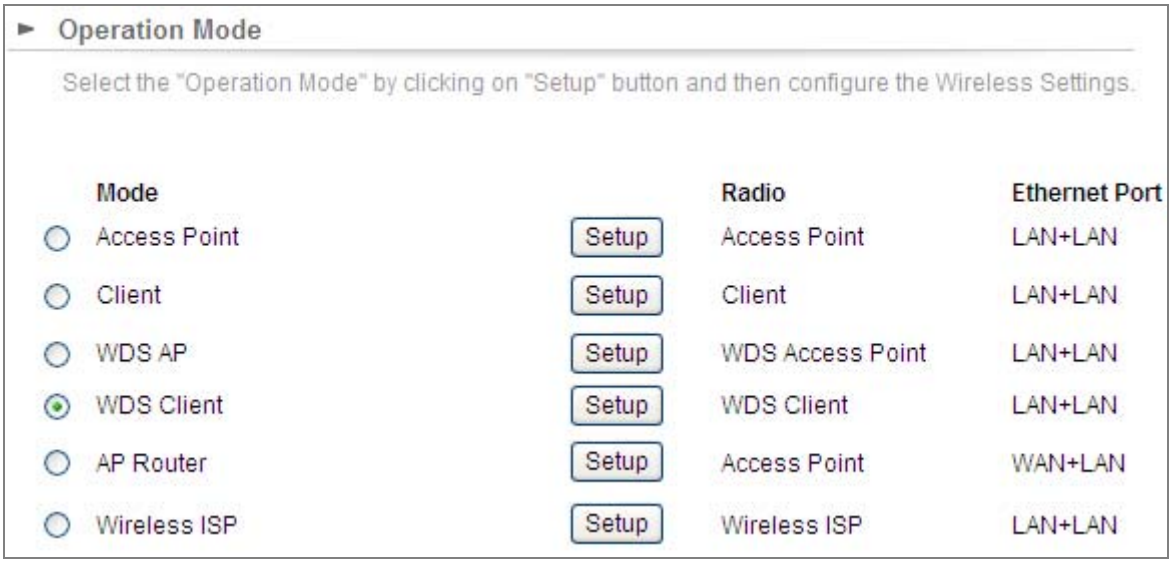


Step 4. In AP-2, modify the default IP to the same IP range but different from AP-1.

In this case, the IP is changed to **192.168.1.252**.



Step 5. In AP-2, configure it in "**Client**" mode and click "**Setup**".



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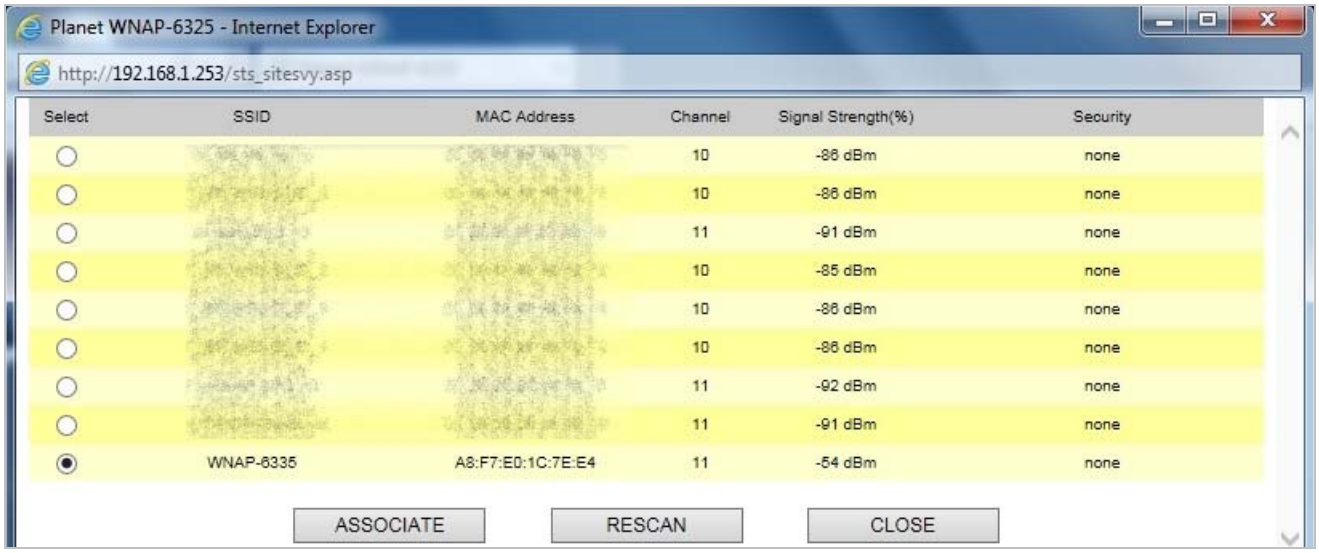
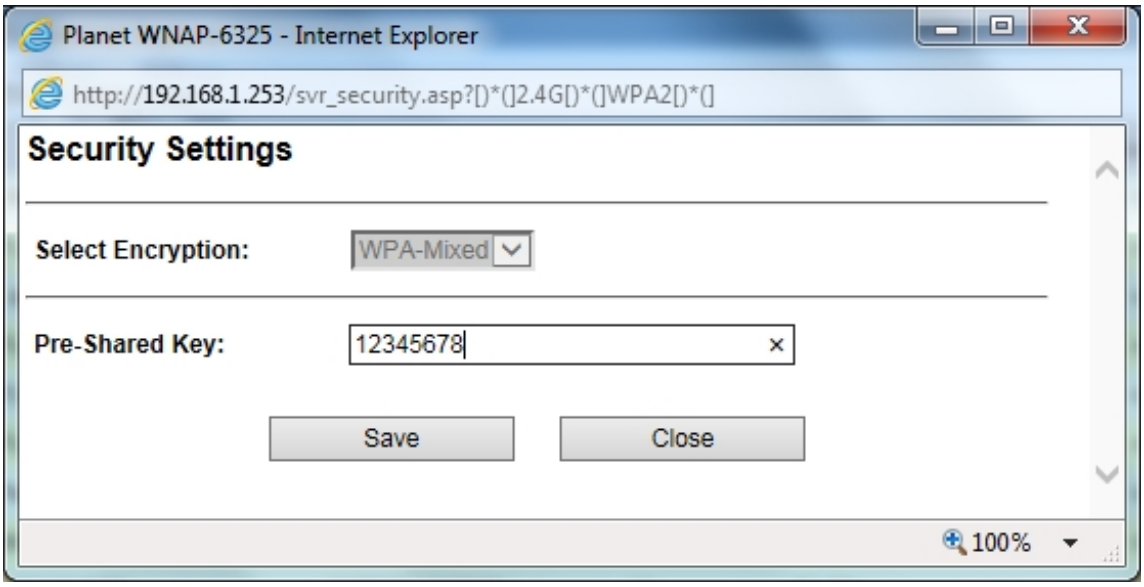
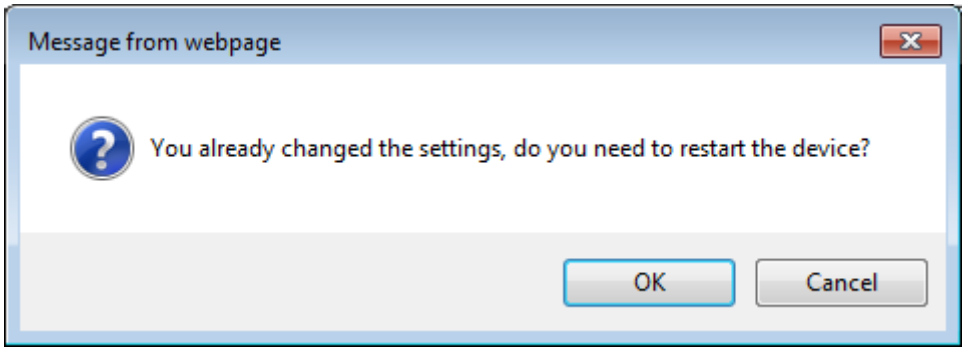


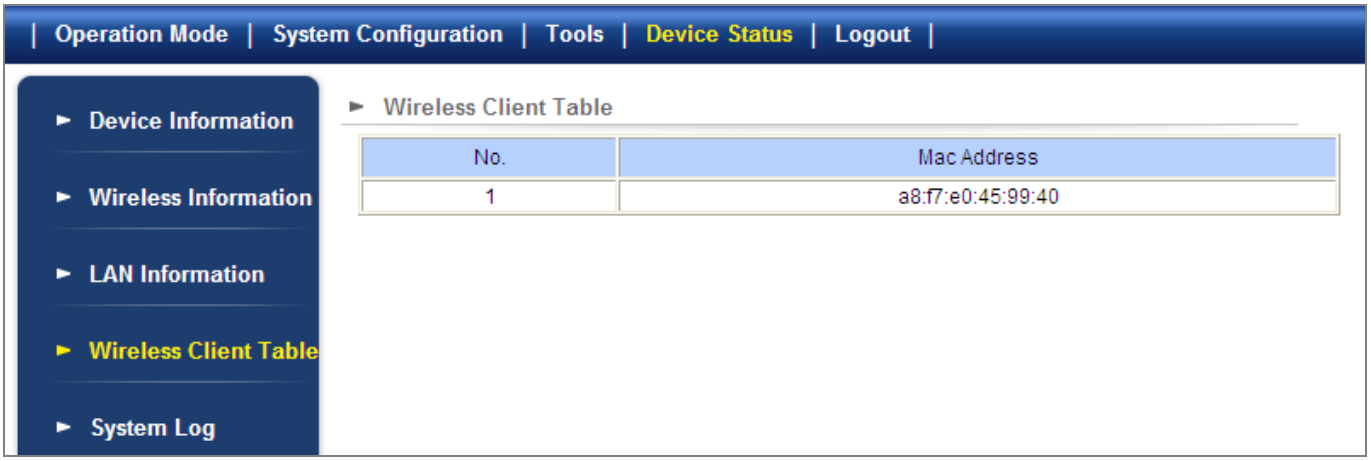
Step 8. Click "**SET SECURITY**" to configure the Pre-Shared Key and then click "**Save**" to close the window.



Step 9. Click "OK" and click "**Save & Restart**" to apply the setting.



Step 10. In AP-1, go to "**Device Status-> Wireless Client Table**" to check whether AP-2 should be in the list.



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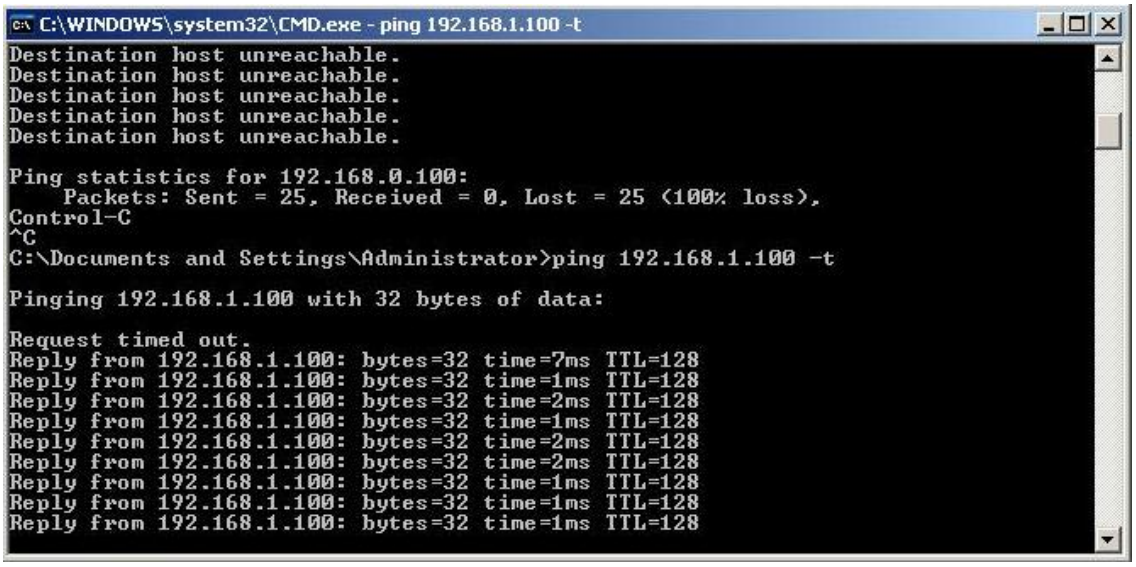
From Site-1, ping 192.168.1.200; and in Site-2, ping 192.168.1.100.



Note

The attention of the following hints should be paid:

1) The encryption method must be the same as that of both sites if configured.
2) Both sites should be Line-of-Sight.
3) For the short distance connection less than 1km, please reduce the "Transmit power" of both sites.
4) For the long distance connection over 1km, please adjust the "Transmit Distance" to the actual distance or double of the actual distance.

EC Declaration of Conformity

English	Hereby, **PLANET Technology Corporation,** declares that this **300Mbps 802.11n Wireless Outdoor CPE** is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.	**Lietuviškai**	Šiuo **PLANET Technology Corporation,**, skelbia, kad **300Mbps 802.11n Wireless Outdoor CPE** tenkina visus svarbiausius 1999/5/EC direktyvos reikalavimus ir kitas svarbias nuostatas.
Česky	Společnost **PLANET Technology Corporation,** tímto prohlašuje, že tato **300Mbps 802.11n Wireless Outdoor CPE** splňuje základní požadavky a další příslušná ustanovení směrnice 1999/5/EC.	**Magyar**	A gyártó **PLANET Technology Corporation**, kijelenti, hogy ez a **300Mbps 802.11n Wireless Outdoor CPE** megfelel az 1999/5/EK irányelv alapkövetelményeinek és a kapcsolódó rendelkezéseknek.
Dansk	**PLANET Technology Corporation,** erklærer herved, at følgende udstyr **300Mbps 802.11n Wireless Outdoor CPE** overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF	**Malti**	Hawnhekk, **PLANET Technology Corporation,** jiddikjara li dan **300Mbps 802.11n Wireless Outdoor CPE** jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC
Deutsch	Hiermit erklärt **PLANET Technology Corporation,** dass sich dieses Gerät **300Mbps 802.11n Wireless Outdoor CPE** in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)	**Nederlands**	Hierbij verklaart , **PLANET Technology orporation,** dat **300Mbps 802.11n Wireless Outdoor CPE** in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG
Eestikeeles	Käesolevaga kinnitab **PLANET Technology Corporation,** et see **300Mbps 802.11n Wireless Outdoor CPE** vastab Euroopa Nõukogu direktiivi 1999/5/EC põhinõuetele ja muudele olulistele tingimustele.	**Polski**	Niniejszym firma **PLANET Technology Corporation,** oświadcza, że **300Mbps 802.11n Wireless Outdoor CPE** spełnia wszystkie istotne wymogi i klauzule zawarte w dokumencie „Directive 1999/5/EC”.
Ελληνικά	*ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ* , **PLANET Technology Corporation,** *ΔΗΛΩΝΕΙ ΟΤΙ ΑΥΤΟ* **300Mbps 802.11n Wireless Outdoor CPE***ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ* *ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ*	**Português**	**PLANET Technology Corporation**, declara que este **300Mbps 802.11n Wireless Outdoor CPE** está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Español	Por medio de la presente, **PLANET Technology Corporation,** declara que **300Mbps 802.11n Wireless Outdoor CPE** cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE	**Slovensky**	Výrobca **PLANET Technology Corporation,** týmto deklaruje, že táto **300Mbps 802.11n Wireless Outdoor CPE** je v súlade so základnými požiadavkami a ďalšími relevantnými predpismi smernice 1999/5/EC.
Français	Par la présente, **PLANET Technology Corporation,** déclare que les appareils du **300Mbps 802.11n Wireless Outdoor CPE** sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE	**Slovensko**	**PLANET Technology Corporation**, **s tem potrjuje,** da je ta **300Mbps 802.11n Wireless Outdoor CPE** skladen/a z osnovnimi zahtevami in ustreznimi določili Direktive 1999/5/EC.
Italiano	Con la presente , **PLANET Technology Corporation,** dichiara che questo **300Mbps 802.11n Wireless Outdoor CPE** è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.	**Suomi**	**PLANET Technology Corporation,** vakuuttaa täten että **300Mbps 802.11n Wireless Outdoor CPE** tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Latviski	Ar šo **PLANET Technology Corporation,** apliecina, ka šī **300Mbps 802.11n Wireless Outdoor CPE** atbilst Direktīvas 1999/5/EK pamatprasībām un citiem atbilstošiem noteikumiem.	**Svenska**	Härmed intygar, **PLANET Technology Corporation,** att denna **300Mbps 802.11n Wireless Outdoor CPE** står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.